United Nations Environment Management Group (EMG)

An overview of UN Activities and Initiatives related to Pollution

Version N3 April 2023

Table of Contents

LIST OF FIGURES AND TABLES	5
EXECUTIVE SUMMARY	ε
BACKGROUND AND CONTEXT	g
METHODOLOGY	10
Scope	
Process	10
POLLUTION GOVERNANCE MANDATES, KEY INTERNATIONAL AGREEMENTS, COMMITMENTS AND PROCESSES	
International agreements and conventions	11
Pollution related mandates	
United Nations General Assembly	
United Nations Environment Assembly	
Addressing Pollution in the context of the 2030 Agenda for Sustainable Development	24
MAPPING OF EXISTING EFFORTS	28
International Instruments and Coordination Mechanisms	29
Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora	
UN Department of Operational Support	
Secretariat of the UN Convention to Combat Desertification	
United Nations Department of Economic and Social Affairs, Division for Sustainable Development	
UN Environment Programme – Ozone Secretariat	
Minamata Convention on Mercury	33
Secretariat of the Basel, Rotterdam and Stockholm Conventions	33
Secretariat of the Convention on Biological Diversity Secretariat of the Convention on Migratory Species	3 ²
Ramsar Convention on Wetlands Secretariat	36
Secretariat of the UN Framework Convention on Climate Change	36
Environment and Development	37
United Nations Office for Disaster Risk Reduction	
Office for the Coordination of Humanitarian Affairs	37
United Nations Educational Scientific and Cultural Organization	
United Nations High Commissioner for Refugees	38
United Nations Entity for Gender Equality and Empowerment of Women	
United Nations Environment Programme	

United Nations Development Programme	
Economic and Social Commission for Western Asia	43
International Organization for Migration	43
Office of the High Commissioner for Human Rights	44
Economic and Social Commission for Africa	
United Nations Economic Commission for Europe	
Economic and Social Commission for Latin America and the Caribbean	
Economic and Social Commission for Asia and the Pacific	47
Agriculture and Labour	48
Food and Agriculture Organization	48
International Labour Organization	49
World Food Programme	50
Business, Trade and Life-cycle	51
International Civil Aviation Organization	
International Telecommunications Union	
Universal Postal Union	52
World Intellectual Property Organization	
United Nations Human Settlements Programme	
United Nations Industrial Development Organization	
World Trade Organization	
United Nations Conference on Trade and Development	
International Trade Centre	
World Tourism Organization	
United Nations Office for Project Services	
Health and Sanitation	58
World Health Organization	
United Nations Children's Fund	
United Nations Office on Drugs and Crime	
Research and Training	61
United Nations Institute for Training and Research	61
United Nations University	
International Atomic Energy Agency	
World Meteorological Organization	
United Nations Office for Outer Space Affairs	
Funding and Financial Mechanisms	64
International Monetary Fund	
United Nations Population Fund	
The Global Environment Facility	
International Fund for Agricultural Development	
The World Bank -The World Bank Group	
Partnerships	69
CAPACITY GAPS, OPPORTUNITIES FOR FURTHER COLLABORATION AND CON	ICLUDING REMARKS
	71
Knowledge	71

Implementation	73
Infrastructure	75
Awareness	75
Leadership	76
Concluding remarks	77
ANNEXES	79
Annex I: Members of the EMG Consultative Process to prepare a UN system-wide approach Planet	
Annex II: Questions included in the online mapping of efforts survey	80
Annex III: Efforts towards tackling pollution identified within the UN System	82
Annex IV: Figure 6 elaboration methodology	85
BIBLIOGRAPHY	86

List of figures and tables

Figure 1 Dimensions of pollution frameworkSource: Own elaboration based on data from Towards a Pollution-Fr	ee			
Planet Background Report (UNEP, 2017)				
Figure 4 Action Lines (as suggested by the Implementation Plan (UNEP, 2019) addressed by UNEA resolution				
mandates	72			
Figure 5 UNEA Monitoring and Reporting Portal's progress monitoring variables	73			
Figure 6 UN efforts in the Implementation Plan's dimensions of pollution according to their area of focus.	74			
Figure 8 Reporting completeness per environmental area of the Strategy for sustainability management in the				
United Nations system, 2020–2030	76			
Table 1 Conventions and agreements that directly address pollution	12			
Table 2 United Nations General Assembly resolution elements related pollution and action areas to address it	14			
Table 3 United Nations Environment Assembly resolution elements related pollution and action areas to address	it			
	16			
Table 4 Sustainable Development Goals and their relationship with pollution	25			
Table 5 Classification of UN System entities	28			
Table 6 Efforts towards tackling pollution identified within the UN System	82			

Executive Summary

Pollution is one of the major crises faced by our planet. Environmental risk factors, such as air, water and soil pollution, chemical exposures, and ultraviolet radiation, contribute to more than 100 diseases and injuries. The World Health Organization (WHO) estimated that 24% of all estimated global deaths are linked to the environment. The effects of pollution strike developing countries and vulnerable populations harder. Over 90% of premature deaths occur in low- and middle-income countries, making pollution the largest cause of death within these territories. This constitutes a serious impediment to achieving the objective of the 2030 Agenda for Sustainable Development of "leaving no one behind". Therefore, tackling pollution is vital to reduce the burden of disease and improve life quality, especially for women and children.

The UN Environment Assembly (UNEA) placed pollution high on the global agenda with the adoption in 2019 of the global Implementation Plan "Towards a Pollution Free Planet" (UNEP, 2019). Achieving the Implementation Plan and other recently approved mandates from UNEA and other relevant entities requires a UN system common approach that targets the root causes and drivers of pollution and deliver deeper, broader impacts.

A Consultative Process was established within the Environment Management Group (EMG) to prepare the UN system common approach to provide a framework for collective action in support of the Implementation Plan to accelerate the sustainable, inclusive and just transition towards a pollution-free planet. To achieve this objective, the process needs to begin the task by mapping the existing efforts to tackle pollution within the UN System: identifying roles, mandates and opportunities in the UN system for strengthened efforts towards a pollution-free planet.

In order to understand how pollution is to be addressed within the UN system, the report initially identifies international treaties such as conventions and multilateral agreements; resolutions and mandates; and other policy instruments that provide the governance framework for specific, time-bound actions, as well as monitoring and reporting schemes.

Additionally, the report provides a mapping of efforts related to pollution from over 50 UN agencies, programmes, initiatives and other sources of expertise. Some UN entities have explicit mandates in this area and/or conduct major activities that directly address pollution while others have more indirect remits that derive from their work on the green economy, climate change, international trade or humanitarian issues. For each of the UN entities assessed, the mapping includes a brief mention to the core mandate of action, a description of the agency's efforts towards tackling the different dimensions of pollution and a chart summarizing the agency's impact on pollution dimensions: air; water; soil; marine & coastal; and chemicals & waste.

The assessment also reviewed how over thirty partnerships are addressing at least one of the five pollution dimensions. While this evidences that stakeholders have a strong intention to collaborate among each other, the analysis also revealed there is an unbalanced distribution of efforts among pollution dimensions in favour of chemicals & waste (13 identified partnerships) as well as air (9 identified partnerships).

Finally, the report identifies potential opportunities for further collaboration and leveraging the potential of UN entities:

1. DEVELOP AN INTEGRATED AND COORDINATED APPROACH TO POLLUTION: While many UN entities are currently addressing pollution through their mandates, expertise and operations, efforts are not covering all aspects of pollution and might benefit from improved coordination and coherence. There is a need for greater collaboration and coordination between UN entities to ensure that efforts are not duplicated and that resources are used efficiently. UN entities have been developing a large set of knowledge, expertise, and operations to tackle pollution. However, efforts are uneven, and a shared goal is lacking. Addressing pollution requires deep multi-level and multi-actor involvement, coordination, and policy coherence across global, regional, national, subnational and local levels. UN entities can strengthen their collaborations and partnerships among each other and with other stakeholders such as governments, civil society

organizations, and the private sector to enhance their efforts towards tackling pollution. This can help to leverage expertise, resources and knowledge across different sectors. Additionally, a limited focus on pollution prevention was identified, and instead, emphasis is given on mitigation and remediation efforts. For example, more focus could be given to the root causes of pollution, including unsustainable consumption and production patterns and the linkages between pollution and human rights violations, particularly of marginalized and vulnerable populations.

- There is an unbalanced use of resources, with most activities aiming at chemicals & waste and air pollution dimensions; in detriment of the soil dimension.
- The latest report of the Strategy for sustainability management in the United Nations system revealed that over 80% of UN Entities completed their reporting commitments and up to an 18% opted not to report.
- The UN Global Compact strategy that works to mobilize a global movement of sustainable companies and stakeholders, has a strong potential to work as a joint platform to enhances efforts in prevention of pollution.
- 2. AGREE ON A COMMON DEFINITION OF POLLUTION: The breadth of the term and the lack of an agreed categorization of the various types of pollution that should be addressed by UN entities make it difficult to systematize and classify activities. A harmonized categorization of the several types of pollution would allow comparison among the initiatives in order to provide a more holistic analysis of what is being cover.
 - Most UN entities organize their websites by grouping their work in topics or categories. The term "pollution" is rarely among these main topics.
- **3. SHARE AVAILABLE KNOWLEDGE:** Although many initiatives towards building knowledge related to pollution were identified, the lack of systematization of forms and mechanisms for sharing knowledge makes their visibility difficult. There is a need to share available knowledge about pollution for a better understanding of the problem and its possible solutions, and the interlinkages and opportunities that can be identified among UN entities.
 - Almost 40% of UNEA's resolutions related to pollution include at least one mandate towards improving knowledge on pollution management.
 - There are 25 UN entities implementing programmes that tackle directly at least one pollution dimension, seven of which have direct impact in all five dimensions: GEF, UNDP, UNITAR, UNIDO, UNEP, BRS Secretariat and the Office of the High Commissioner for Human Rights.
 - Existing knowledge sharing portals within the UN System could be used as basis for a centralized database on pollution, for example, InforMEA.
- 4. INCREASE ACTIONS TOWARDS INFRASTRUCTURE AND MONITORING OF POLLUTION LEVELS: Despite the efforts of UN agencies, there are still significant capacity gaps in infrastructure for pollution control and management. One of the biggest capacity gaps is the lack of data and information on pollution levels in many parts of the world. The lack of data makes it difficult to identify pollution hotspots and to develop effective strategies for pollution control and management. Considering that efforts towards building and strengthening infrastructure tend to have higher costs, the lower occurrence of calls towards them is an understandable outcome. In this scenario UN, entities within the Funding and Financial Mechanisms group, such as the GEF or the World Bank, became vital to ensure the provision of pollution prevention and mitigation infrastructure globally.
 - Infrastructure is one of the least mentioned action lines in UNEA resolutions and their mandates.
 - UN Entities could address this capacity gap by providing training and technical assistance to member states to help them develop monitoring and reporting systems for pollution.
 - Another area of opportunity is the use of technology to improve pollution monitoring and control.
- 5. INCREASE AWARENESS AND COMMUNICATION OF PROGRESS: In order to reach all audiences and achieve effective mainstreaming of the issue of pollution, awareness and recognition of the importance of

addressing pollution should be raised among UN entities and stakeholders. The design of UN system-wide coordinated awareness campaigns aimed at growing recognition of the importance of addressing pollution in achieving a just and equitable transition to a sustainable future – such as the Beat Pollution campaign - would favour the engagement and participation of UN entities, Members States, civil society and the private sector. Effective communication strategies, education campaigns and community mobilization can help to increase public support for policies and initiatives aimed at tackling pollution and encourage behavior change. Additionally, developing a mechanism for progress monitoring of UN efforts and sharing results with all audiences could increase the engagement and participation of other UN entities in addressing pollution.

 An approach in this direction is being implemented by UNEP through the UNEA Monitoring and Reporting Portal

The mapping of efforts process left no doubts of UN system's will to tackle pollution. However, it remained equally evident that a short and medium-term roadmap to agree upon and sensibilize next steps would be highly advantageous. UN, as well as other stakeholders are investing a substantial amount of economic, human and time resources against pollution; it is only sensible to develop an integrated and cohesive approach to guide and capitalize these efforts towards a pollution free planet. This report will help to enhance the understanding of efforts on tackling pollution across the UN System. It should help to pave the way for designing a UN system wide common approach to expand collaboration, coordination, and expertise on pollution through a more integrated and systematic interagency approach.

Background and context

Pollution is one of the three major crises faced by our planet, together with climate change and biodiversity loss. Environmental risk factors, such as air, water and soil pollution, chemical and hazardous waste exposures, climate change, and ultraviolet radiation, contribute to more than 100 diseases and injuries. The World Health Organization estimated that 24% of all estimated global deaths are linked to the environment and that in children under 5 years, up to 26% of all deaths could be prevented if environmental risks were removed (World Health Organization, n.d.). In 2019, 99% of the world population was living in places where the WHO air quality guidelines levels were not met. Ambient (outdoor air pollution) in both cities and rural areas was estimated to cause 4.2 million premature deaths worldwide in 2016. In 2020, 45% of the household wastewater generated globally was discharged without safe treatment. At least 10% of the world's population is thought to consume food irrigated by wastewater. Poor sanitation reduces human well-being, social and economic development due to impacts such as anxiety, risk of sexual assault, and lost opportunities for education and work. Some 829,000 people die each year from diarrhoea as a result of unsafe drinking-water, sanitation, and hand hygiene.

The effects of pollution strike developing countries and vulnerable populations harder. Over 90% of premature deaths occur in low- and middle-income countries, making pollution the largest cause of death within these territories. This constitutes a serious impediment to achieving the objective of the 2030 Agenda for Sustainable Development of "leaving no one behind". Therefore, tackling pollution is vital to reduce the burden of disease and improve life quality, especially for women and children.

The UN Environment Assembly placed pollution high on the global agenda with the adoption in 2019 of the global Implementation Plan "Towards a Pollution Free Planet" (UNEP, 2019), from now onwards, the Implementation Plan. Achieving the Implementation Plan and other recently approved mandates from UNEA and other relevant entities requires a UN system common approach that targets the root causes and drivers of pollution and deliver deeper, broader impacts.

Many UN entities¹ are currently addressing pollution through their mandates, expertise and operations. These existing efforts could benefit from stronger synergies, common narratives, and more coordinated action for increased impact.

The Environment Management Group (EMG)² Senior Officials decided, at their 27th meeting in October 2021, to establish a Consultative Process³ to prepare the UN system common approach to provide a framework for collective action in support of the Implementation Plan to accelerate the sustainable, inclusive and just transition towards a pollution-free planet, building on existing efforts undertaken by various UN and related entities. A common approach would help the UN align its efforts and mobilize the entirety of its relevant mandates.

According to its Terms of Reference, the Consultative Process is tasked to prepare a UN common approach in order to contribute to enhanced implementation and coherence through UN agencies action to transition "Towards a Pollution-Free Planet". To achieve this objective, the Consultative Process needs to begin the task by mapping the existing efforts to tackle pollution within the UN System: identifying roles, mandates and opportunities in the UN system for strengthened efforts towards a pollution-free planet.

9

¹ The term entities is used to group all UN agencies, programs, initiatives, and other sources of expertise such as alliances, partnerships.

² The United Nations established the EMG in 2001, following the reform agenda of the Secretary-General of the United Nations to improve interagency coordination in the field of the environment and human settlements. Today, the EMG works to convene all of the UN system to foster system-wide coherence and effectiveness on the environment, curating the collective wisdom and expertise from 51 UN agencies around specific environmental issues and fostering system-wide efficiency through collaboration to achieve the Sustainable Development Goals.

³ See Annex I for the members of the Consultative Process on a Pollution-Free Planet.

Methodology

Scope

The report identifies pollution-related efforts led by the UN System entities. Due to the considerable extent of the task, the following decisions were made:

- Pollution is to be understood as the presence of substances and heat, including chemicals and waste, in environmental media (air, water, land/soil, marine and coastal) whose nature, location, or quantity produces undesirable environmental effects.
- The main body of the report describes major efforts identified through the desk research and an online survey. It does not include a detailed list of resolutions, reports or other types of publications reviewed.
- The report considers the most recent mandates and decisions, with a particular focus on UNEA 5 outcomes.
- The mapping includes strategies, plans and programmes related to fighting pollution. Projects are only included as relevant examples to illustrate such initiatives, an exhaustive list of all pollution-related projects is not included.
- Climate change related efforts are included when the focus includes mitigation, understanding that GHG emissions are being reduced and therefore air pollution is being addressed. Efforts described as aimed at building resilience are not included.
- In order to avoid the overlap with other ongoing initiatives within the UN system, plastic pollution and marine litter are addressed in a broad manner within the dimensions Chemicals & Waste and Marine & Coastal. For an in-depth review please refer to the 2022 EMG report "Addressing marine litter and microplastics: UN system-wide contributions".

Process

The identification of existing pollution-related efforts was conducted using a desktop-based scoping study over a two-month period, building on the efforts identified in the report Addressing marine litter and microplastics: UN system-wide contributions United Nations Environment Management Group, 2022), from now onwards, the EMG Marine Litter and Microplastics report, as well as in the Implementation Plan. The research consisted of:

- analysing landing pages and main sections of official UN websites of each entity member of the EMG. A search of the term "pollution" was done under each website to identify strategies, plans and programmes⁴ related to fighting pollution.
- reviewing relevant online reports and UN resolutions; and
- conducting an online survey among EMG members aimed to identify further initiatives underway. The
 questions included in the survey can be consulted in Annex II. The objective of the survey was to gather
 first hand data on the direct and indirect mandates and activities of each entity; examples of relevant
 initiatives carried out by the entity; existing partnerships and collaborations; and ambitions and emerging
 actions of the entity. Seven responses from six UN entities were obtained.

To ensure efficiency and alignment with activities conducted previously by the EMG and the Consultative Process, the mapping follows the structure of the EMG Marine Litter and Microplastics report, grouping UN entities according to broad thematic areas and sectors based on the main focus of their activities in the topic of pollution: 1) International Instruments and Coordination Mechanisms, 2) Environment and Development; 3) Agriculture and Labour; 4) Business, Trade and Life-cycle; 5) Health and Sanitation; 6) Research and Training; 7) Funding and Financial Mechanisms.

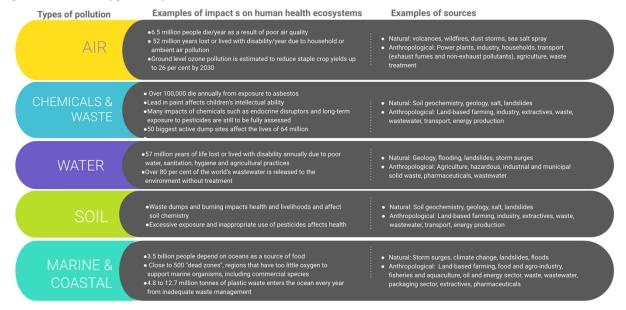
For each of the UN entities, the mapping includes:

- A brief mention to the core mandate of action.
- A description of the agency's efforts towards tackling the different dimensions of pollution.

⁴ Projects, news, or articles were not evaluated exhaustively; projects are only included as relevant examples to illustrate initiatives.

A chart summarizing the agency's impact on pollution dimensions: air; water; soil; marine & coastal; and chemicals and waste. ⁵ These dimensions have been previously worked in UN pollution related documents such as EMG Marine Litter and Microplastics report and the Towards a Pollution-Free Planet Background Report (UNEP, 2017). Figure 1 briefly describes the conceptual framework of each dimension.

Figure 1 Dimensions of pollution framework



Source: Own elaboration based on data from Towards a Pollution-Free Planet Background Report (UNEP, 2017)

Lastly, capacity gaps and opportunities for further collaboration and leveraging the potential of UN agencies and their initiatives are identified vis-à-vis the areas of action defined in the Implementation Plan: knowledge, implementation, infrastructure, awareness and leadership. Again, the findings from the EMG Marine Litter and Microplastics were used as an input since gaps identified in the report are relevant to pollution.

Pollution governance mandates, key international agreements, commitments and processes

This chapter reviews the numerous efforts that have been developed towards minimizing and preventing the different dimensions of pollution. These include international treaties such as conventions and multilateral agreements; resolutions and mandates; and other policy instruments. These institutional tools offer a governance framework for specific, time-bound actions, as well as monitoring and reporting schemes.

They encourage knowledge sharing and international collaboration to address pollution. Different forms of pollution are covered by a number of multilateral environmental agreements.

International agreements and conventions

Legally binding approaches such as the multilateral environmental are essential to addressing the most critical and complex pollution challenges. Several of the multilateral environmental agreements enjoy universal or near universal ratification.

⁵ See Annex II for the complete chart.

Pollution related conventions are presented in Table 1. These include agreements that directly address pollution, as well as key international instruments, processes, commitments and treaties that are directly or indirectly linked to it. Table 1 builds on the analysis of available and provided information, particularly the Implementation Plan (UNEP, 2019) and the Marine Litter and Microplastics EMG report (United Nations Environment Management Group, 2022). It provides a brief synopsis of the most relevant binding and non-binding instruments and processes on the topic.

Table 1 Conventions and agreements that directly address pollution

CROSS-CUTTING			
Stockholm Declaration	Signed in 1972, it describes the fundamental right to freedom, equality and adequate		
	conditions of life, in an environment of a quality		
Rio Declaration	Declares that humans are entitled to a healthy and productive life in harmony with nature		
Convention on Environmental Impact Assessment in	The Espoo Convention and the Protocol (serviced by UNECE) enshrine the		
a transboundary context (Espoo Convention) and its Protocol on Strategic Environmental Assessment	precautionary principle requiring Parties to prevent or to reduce adverse significant impact to environment and human health - including air, water, soil, radioactive and noise pollution – from across the economic sectors and national borders. The treaties provide for transparent and participatory procedures for identifying sustainable measures and alternatives.		
Sendai Framework for Disaster Risk Reduction	The Sendai Framework (2015-2030) promotes a multi-hazard and systemic risk approach to prevent the creation of new risks, reduce existing risks and increase resilience. Pollution is one of the hazards identified in the Terminology on Disaster Risk Reduction (UNDRR, n.d.)		
	AIR		
Instrument	Approach towards tackling pollution		
United Nations Framework Convention on Climate Change	In order to combat dangerous human interference with the climate system the United Nations Framework Convention on Climate Change (UNFCCC) established a global environmental treaty that included stabilizing GHG concentrations in the atmosphere.		
Convention on Long-Range Transboundary Air Pollution (LARP)	LARP was established in 1979 and created a regional framework applicable to Europe, North America and Russia and former East Bloc countries for reducing transboundary air pollution and better understanding air pollution science. LRTAP (serviced by UNECE) has contributed to a dramatic decline in air pollution emissions in the region, particularly for sulphur, and economic growth and air pollution trends have been progressively decoupled. The Convention has 51 Parties and eight protocols, most of which address specific pollutants.		
Convention on International Civil Aviation (also known as Chicago Convention)	The Chicago Convention led to the creation of the specialized agency which has overseen it ever since – the International Civil Aviation Organization (ICAO). The International Standards and Recommended Practices (SARPS) contained in the nineteen Technical Annexes to the Chicago Convention are applied universally and produce a high degree of technical uniformity, which has enabled international civil aviation to sustainably develop in a safe, orderly and efficient manner. Annex 16 Volumes I, II, III, and IV contain SARPS for aircraft noise and emissions.		
	WATER		
Instrument	Approach towards tackling pollution		
Ramsar Convention on Wetlands of International Importance especially	Under the Ramsar Convention, a wide variety of natural and human-made habitat types can be classified as wetlands, including swamps, marshes, lakes, salt marshes, mudflats, coral reefs, or bodies of water - whether natural or artificial, permanent or temporary. Water within these areas can be static or flowing; fresh, brackish or saline; and can include inland rivers and coastal or marine water to a depth of six meters at low tide. The Ramsar Convention's broad aims are to halt the worldwide loss of wetlands and to conserve, through wise use and management, those that remain.		
Convention on the Protection and Use of Transboundary Watercourses and International Lakes and its Protocol on Water and Health	The Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention) is a unique international legal instrument and intergovernmental platform which aims to ensure the sustainable use of transboundary water resources by facilitating cooperation. The Protocol on Water and Health, jointly serviced by UNECE and WHO-Europe, is a unique legally binding instrument aiming to protect human health by better water management and by reducing water-related diseases. The Protocol provides a practical framework to translate into practice the human rights to water and sanitation and to implement SDG 6.		
The Convention on the Transboundary Effects of Industrial Accidents.	The Convention (serviced by UNECE) aims to prevent accidents from occurring or reducing their frequency and severity and mitigating their effects if required. It		

	promotes active international cooperation between countries, before, during and after
	an industrial accident. It includes a Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters
Convention on the Law of the Non-navigational Uses of International Watercourses	International treaty pertaining to the uses and conservation of all waters that cross international boundaries, including both surface and groundwater. Its aim is to help conserve and manage water resources for present and future generations. With less than 50 signatories, the majority of countries remain outside its scope. The convention, however, is regarded as an important step in establishing international law governing water.
	SOIL
Instrument	Approach towards tackling pollution
United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa (1994)	The Convention understands "land degradation" as the reduction or loss, in arid, semi- arid and dry sub-humid areas, of the biological or economic productivity and complexity of rainfed cropland, irrigated cropland, or range, pasture, forest and woodlands resulting from land uses or from a process or combination of processes, including processes arising from human activities and habitation patterns, such as soil erosion caused by wind and water deterioration of the physical, chemical and biological or economic properties of soil; and long term loss of natural vegetation. Pollution and waste are the major causes of chemical property change of the soil.
	Annex IV on Regional Implementation Annex for the Northern Mediterranean and Annex V on Regional implementation Annex for Central and Eastern Europe both include in its Article 2: "The particular conditions of the region referred to in article 1 of the convention, which apply in varying degrees to the affected country Parties of the region include: (d) unsustainable exploitation of water resources leading to serious environmental damage, including chemical pollution, salinisation and exhaustion of aquifers."
Kunming-Montreal Global Biodiversity Framework (December 2022)	Target 7 of the convention aims to reduce pollution risks and the negative impact of pollution from all sources, by 2030, to levels that are not harmful to biodiversity and ecosystem functions and services, considering cumulative effects, including: reducing excess nutrients lost to the environment by at least half including through more efficient nutrient cycling and use; reducing the overall risk from pesticides and highly hazardous chemicals by at least half including through integrated pest management, based on science, taking into account food security and livelihoods; and also preventing, reducing, and working towards eliminating plastic pollution.
Chemicals and waste conventions	(See Chemicals & Waste)
	MARINE & COASTAL
Instrument Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter	Approach towards tackling pollution The Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (also known as the London Convention), is one of the first global conventions to protect the marine environment from human activities. Its objective is to promote the effective control of all sources of marine pollution and to take all practicable steps to prevent pollution of the sea by dumping of wastes and other matter.
International Convention for the Prevention of	Also known as MARPOL, this is the main international convention covering prevention
Pollution from Ships United Nations Convention on the Law of the Sea	of pollution of the marine environment by ships from operational or accidental causes. Also called the Law of the Sea Convention or the Law of the Sea Treaty, this is an international agreement that establishes a legal framework for all marine and maritime activities. Its objectives include facilitating the equitable and efficient utilization of their resources, the conservation of their living resources, and the study, protection and preservation of the marine environment.
International Convention on Oil Pollution Preparedness, Response and Co-operation	Also known as OPRC 90, this is the international instrument that provides a framework designed to facilitate international co-operation and mutual assistance in preparing for and responding to major oil pollution incidents.
Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (not legally binding)	The Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (GPA) is a not legally binding intergovernmental mechanism created to counter the issue of land-based pollution.
	CHEMICALS & WASTE
Instrument	Approach towards tackling pollution
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal	The overarching objective of the Basel Convention is to protect human health and the environment against the adverse effects of hazardous wastes. Its scope of application covers a wide range of wastes defined as hazardous waste based on their origin and/or composition and their characteristics, as well as two types of wastes defined as "other wastes" - household waste and incinerator ash. In 2019 it broadened its scopes with

	the adoption of amendments to Annexes II, VIII and IX to the Convention with the objectives of enhancing the control of the trans-boundary movements of plastic waste.
Stockholm Convention on Persistent Organic Pollutants	This convention was designed to protect human health and the environment from persistent organic pollutants (POPs)—chemical substances that are persistent and toxic, that bioaccumulate in fatty tissue (achieving higher concentrations as they move up a particular food chain), and that are prone to long-range environmental transport. Among other things, the convention contains obligations to eliminate or severely restrict the production and use of a number of POP pesticides and industrial chemicals, to take strong measures to prevent or control the release of certain POPs that are formed as by-products of various combustion activities, and to ensure the safe and proper disposal or destruction of such substances when they become wastes.
Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade	This treaty was designed to facilitate informed decision-making by countries with regard to trade in hazardous chemicals. It establishes a list of covered chemicals and requires parties seeking to export a chemical on that list to first establish that the intended importing country has consented to the import. It also requires that a party seeking to export a chemical that is not listed under the Convention but that is subject to a ban or severe restriction in its own territory must provide notice to the importing country of the proposed export.
Minamata Convention on Mercury	The Minamata Convention on Mercury is a global treaty to protect human health and the environment from the adverse effects of mercury.
Strategic Approach to International Chemicals Management	Also known as SAICM, this non-binding, multi-stakeholder policy framework aims to promote chemical safety around the world. SAICM's overall objective is the achievement of the sound management of chemicals throughout their life. Objectives are grouped under five themes: i) Risk reduction; ii) Knowledge and Information; iii) Governance; iv) Capacity-building and technical cooperation; and v) Illegal international traffic.
Vienna Convention for the Protection of the Ozone Layer	The treaty's provisions include the international sharing of climate and atmospheric research to promote knowledge of the effects on the ozone layer. It calls for the adoption of international agencies to assess the harmful effects of depleted ozone and the promotion of policies that regulate the production of harmful substances that influence the ozone layer.
Montreal Protocol on Substances that Deplete the Ozone Layer and the Kigali Amendment to the Montreal Protocol	The Montreal Protocol was designed to protect the ozone layer by phasing out the production of numerous substances that are responsible for ozone depletion. Most of these ozone-depleting substances are also powerful greenhouse gases. The Kigali Amendment calls for a gradual phase down of the consumption and production of hydrofluorocarbons (HFCs), substances that are not ozone-depleting but potent greenhouse gases.

Source: Adapted from the Implementation Plan (UNEP, 2019) including data gathered during the mapping of efforts process.

Pollution related mandates

United Nations General Assembly

The UN General Assembly (UNGA) is the main policy-making organ of the Organization. Comprising all Member States, it provides a unique forum for multilateral discussion of the full spectrum of international issues covered by the Charter of the United Nations. Each of the 193 Member States of the United Nations has an equal vote. The Assembly meets in regular sessions from September to December each year, and thereafter as required. It discusses specific issues through dedicated agenda items or sub-items, which lead to the adoption of resolutions. Table 2 shows key UNGA resolutions in terms of efforts addressing pollution within the UN System.

Table 2 United Nations General Assembly resolution elements related pollution and action areas to address it

UNGA resolution	Main dimension of pollution addressed	Mandates
A/RES/27/2997	Cross-cutting	Institutional and Financial Arrangements for International Environmental Cooperation
A/RES/70/1	Cross-cutting	Transforming our world: the 2030 Agenda for Sustainable Development. See section Addressing Pollution in the context of the 2030 Agenda for Sustainable Development for an overview of the nexus between SGS and pollution.
A/RES/47/188	Soil	Establishment of a convention to Combat Desertification in those Countries Experiencing Serious Drought and/or Desertification, particularly in Africa.

A/RES/ 76/300	Cross-cutting	Recognizing the right to a clean, healthy and sustainable environment as an independent
		human right. This resolution was decades in the making: from a foothold in the 1972 Stockholm Declaration, the right has been integrated into over 156 constitutions, national laws and regional agreements to date, and was recognized by the UN Human Rights Council in October 2021. To make the right a reality for all, UNEP's Law Division is working with States and other stakeholders to develop strategies and tools for implementation of the right to address the triple planetary crisis: climate change, biodiversity loss and pollution.
A/RES/ 69/313.	Cross-cutting	Addis Ababa Action Agenda of the Third International Conference on Financing for Development (Addis Ababa Action Agenda). A global framework for financing development post-2015: States that UNGA will invest in promoting inclusive and sustainable industrial development to effectively address major challenges such as growth and jobs, resources and energy efficiency, pollution and climate change, knowledge-sharing, innovation and social inclusion. In this regard, we welcome relevant cooperation within the United Nations system, including the United Nations Industrial Development Organization (UNIDO), to advance the linkages between infrastructure development, inclusive and sustainable industrialization and innovation. It commits to coherent policy, financing, trade and technology frameworks to protect, manage and restore our ecosystems, including marine and terrestrial ecosystems, and to promote their sustainable use, build resilience, reduce pollution and combat climate change, desertification and land degradation.
Resolution 74/212	Air	International Day of Clean Air for blue skies. UNGA invited the United Nations Environment Programme (UNEP) to facilitate the observance of the International Day, in collaboration with other relevant organizations. The Day aims to: i) Raise public awareness at all levels—individual, community, corporate and government—that clean air is important for health, productivity, the economy and the environment; ii) Demonstrate the close link of air quality to other environmental/developmental challenges such as — most and foremost — climate change and the global Sustainable Development Goals; iii) Promote and facilitate solutions that improve air quality by sharing actionable knowledge best practices, innovations, and success stories; and iv) Bring together diverse international actors working on this topic to form a strategic alliance to gain momentum for concerted national, regional and international approaches for effective air quality management.
A/76/L.75	Cross-cutting	Establishes the human right to a clean, healthy and sustainable environment. Notes that the right to a clean, healthy, and sustainable environment is "related to other rights and existing international law," and affirms that its promotion "requires the full implementation" of the multilateral environmental agreements (MEAs) "under the principles of international environmental law."
A/76/72.	Marine & Coastal	Resolution on Sustainable Fisheries, Underscoring Threats of Sea-Level Rise, Loss of Marine Biodiversity, Marine Debris. It delegates Laud Intergovernmental Committee drawing up a legally binding agreement to end plastic pollution, including in Marine Environment.
A/73/292.	Marine & Coastal	Requested the Secretary-General of the 2022 United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development to prepare concept papers on each of the themes of the interactive dialogues, taking into account the relevant ocean-related processes of the Assembly and other possible contributions.
Resolution /71/313	Cross-cutting	Cape Town Global Action Plan for Sustainable Development Data Prepared by the High- level Group for Partnership, Coordination and Capacity-Building for Statistics for the 2030 Agenda for Sustainable Development
A/61/63/Add.1	Marine & Coastal	Oceans and the law of the sea. Provides an overview of developments relating to the implementation of the United Nations Convention on the Law of the Sea and the work of the Organization.
A/RES/70/299	Cross-cutting	Establishes UN Division for Sustainable Development Goals as the Secretariat for SDGs.
A/RES/64/292	Water	Recognizes the human right to safe drinking water as part of binding international law in 2010
A/C.2/77/L.19/Rev.1)	Waste	Promotes zero-waste discussions and initiatives and proclaims 30 March as International Day of Zero Waste.

Source: Own elaboration based on the Implementation Plan (UNEP, 2017) and data gathered through the mapping of efforts process.

United Nations Environment Assembly

The United Nations Environment Assembly (UNEA) is the world's highest-level decision-making body on the environment, with a universal membership of all 193 Member States. The Assembly meets biennially in Nairobi, Kenya, to set priorities for global environmental policies and develop international environmental law. Through its ministerial declaration and resolutions, the Assembly provides leadership, catalyses intergovernmental action on the environment, and contributes to the implementation of the UN 2030 Agenda for Sustainable Development. The

UN Environment Assembly is also the governing body of the UN Environment Programme. It has had five sessions starting in 2014 and was preceded by the Governing Council of the UN Environment Programme, which was composed of 58 member States.

Table 3 presents UNEA resolutions, and their elements related to the environment, health and pollution, organized under the Implementation Plan action areas to address challenges, as follows:

- i) **Knowledge:** Science for evidence-based policy and action;
- ii) Implementation: capacity, incentives and integrated policies;
- iii) **Infrastructure:** technologies, innovation and circularity (sustainable consumption and production/resource efficiency);
- iv) Awareness: outreach, communication, education and consumer information; and
- v) Leadership: mobilization of stakeholders, leaders and partners to address different forms of pollution.

Table 3 United Nations Environment Assembly resolution elements related pollution and action areas to address it

UNEA resolution	Main dimension of pollution addressed	Mandates
		andates relevant to action area 1: Knowledge
3/4 on Environment & Health	Chemicals & Waste	 Requests UNEP with other UN entities to: Report on the environmental and health impacts of pesticides and fertilizers; Encourage research institutions to share the results of studies on the impacts of pesticides on human and environmental health and peer-reviewed epidemiological studies; Requests UNEP to Assess and report on the health co-benefits of current UNEP climate-change-related projects;
3/7 on Marine litter and microplastics	Marine & Coastal	 Requests UNEP with other UN entities to: Support countries in closing data gaps and improving the availability of accessible data on the sources and extent of marine litter and microplastics in the environment.
3/8 on Preventing and reducing air pollution to improve air quality globally	Air	Requests UNEP to: Continue to support countries in putting in place affordable air quality networks to raise awareness about pollution levels, and produce regional assessments of capacity needs; Support member States in identifying, prioritizing and addressing key sources of air pollution; Assess progress made by member States to adopt and implement key actions to improve air quality.
3/6 on Managing soil pollution to achieve sustainable development	Soil	Requests UNEP with other UN entities to: Report on the extent and future trends of soil pollution and risks and impacts of soil pollution on health, the environment and food security;
3/10 on Addressing water pollution to protect and restore water- related ecosystems	Water	Requests UNEP with other UN entities to: • Develop a World Water Quality Assessment. Requests UNEP to: • Support countries in data collection, analysis and sharing; • Build upon the GEMS/Water Trust Fund to assist developing countries in water quality monitoring; • Compile and share analytical and technical requirements for water quality testing for contaminants; • Provide technical support to facilitate monitoring and reporting on SDG 6.
2/7 on Sound management of chemicals and waste	Chemicals & Waste	Requests UNEP with other UN entities to: • Work with other United Nations entities on the development of relevant data, including supplementary indicators in support of the indicators developed by the United Nations Statistical Commission. Request UNEP to: • Issue an overview for policymakers, by the end of 2017, on policies and actions that could be adopted; • Consider how updates of the Global Waste Management Outlook and the Global Chemicals Outlook could be accorded in timing and approach; • Issue an update of the Global Waste Management Outlook by the end of 2019; • Prepare regional waste management outlooks to enhance the availability of information;

2/8 on Sustainable consumption and production	Chemicals & Waste	 Provide access to available information on best available techniques and technologies; Develop work in the field of technology assessment through tools such as a methodology for sustainability assessment of technologies to enable decision makers to select the most appropriate technologies for achieving the environmentally sound management of waste; Prepare a report to assist SAICM in considering the opportunities presented by Sustainable Chemistry; Submit an update of the Global Chemicals Outlook by the end of 2018. Requests UNEP to: Establish implementing measures for the 10-year framework of programmes on sustainable consumption and production patterns; Monitor and evaluate progress towards implementing the 10-year framework of programmes on sustainable consumption and production patterns through the indicator framework; Support statistical capacity-building in developing countries for adequate measurement, follow-up and review of the 10-year framework of programmes on sustainable consumption and production patterns;
		 Facilitate sharing of information and best practices within and between UNEP programmes and activities; Requests UNEP with other UN entities to: Continue to provide scientific and expert support through the 10-year framework of programmes on sustainable consumption and production patterns; Invite the International Resource Panel to make available reports relevant to this resolution to a future meeting of the Environment Assembly, but no later than 2019.
2/9 on Prevention, reduction and reduce of food waste	Chemicals & Waste	Requests UNEP with other UN entities to: • Explore opportunities to collaborate with UNIDO to expand use of the products of food loss and waste as feedstock for biogas generation and composting.
2/11 on Marine plastic litter and microplastics	Marine & Coastal	Requests UNEP with other UN entities to: • Undertake an assessment of the effectiveness of international, regional and subregional governance strategies and approaches to combat marine plastic litter and microplastics. Requests UNEP to: • Establish harmonized international definitions and terminology, compatible standards and methods and cost-effective monitoring and assessment of marine plastic debris and microplastics.
1/5 on Chemicals & Waste	Chemicals & Waste	Request UNEP to: • Provide compilation of information on techniques for lead and cadmium emission abatement; • Consider the interlinkages between chemicals and waste policies in the global outlook on waste prevention, minimization and management.
1/6 on Marine plastic debris and microplastics	Marine & Coastal	 Requests UNEP with other UN entities to: Undertake a study on marine plastic debris and marine microplastics, focusing on identification of the key sources of marine plastic debris and microplastics, possible preventing measures, recommendations for the most urgent actions and specification of areas in need of more research; Contribute to the study above (with the secretariats of the Stockholm Convention, the Basel Convention, the Convention on Biological Diversity, the Convention on Migratory Species and the regional seas conventions and action plans). Requests UNEP to: Present the study on microplastics for consideration by the Environment Assembly at its second session.
1/7 on Strengthening the role of UNEP in promoting ai quality	Air	Requests UNEP to: • Facilitate the operation of existing UNEP-supported intergovernmental programmes on the assessment of air quality issues. Requests UNEP with other UN entities to: • Undertake global, regional and subregional assessments focused on identifying gaps in capacity to address air quality issues.
1/9 on the Global Environment Monitoring System Water programme	Water	Requests UNEP to: • Collaborate closely with member States to identify additional key elements of the GEMS/Water and ensure the necessary resources for GEMS/Water to operate efficiently; • Initiate discussions on building a consistent database in GEMStat, supporting UNEP Live and informing sustainable development policies.

4/2 on Promoting sustainable practices and innovative solutions for curbing food loss and waste	Chemicals & Waste	Requests UNEP to: • Foster regional and global cooperation and facilitate the exchange of experience and knowledge, research and best practice between Member States and other food-system stakeholders; • Continue to participate in ongoing international initiatives to support the transfer of innovative solutions and practices that can curb food loss and waste.
4/4 on Addressing environmental challenges through sustainable business practices	Cross-cutting	Requests UNEP to: Continue to support the development of skills, especially for micro-, small and medium-sized enterprises, to promote sustainable production patterns, including cleaner production and industrial symbiosis, in order to enhance their profitability, resource efficiency and productivity; Requests UNEP with other UN entities to: In the collection and dissemination of evidence and information about good practice to enable informed decision-making, awareness, networking and knowledge-sharing concerning green business development.
4/6 on Marine plastic litter and microplastics	Marine & coastal	Requests UNEP to: • To strengthen scientific and technological knowledge with regard to marine litter, including marine plastic litter and microplastics; • To Compile available scientific and other relevant data and information to prepare an assessment on sources, pathways and hazards of litter, including plastic litter and microplastics pollution, and its presence in rivers and oceans; scientific knowledge about adverse effects on ecosystems and potential adverse effects on human health; and environmentally sound technological innovations.
4/7 on Environmentally sound management of waste	Chemicals & Waste	Requests UNEP to: • Strengthen the United Nations Environment Programme's International Environment Technology Centre and its role in the provision of technological advice and capacity-building concerning environmentally sound waste management and enhance cooperation with the regional centres of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal and the Stockholm Convention on Persistent Organic Pollutants; • Maintain inventories of environmentally sound waste management technologies and practices, including those introduced in the global and regional waste management outlooks, and share those inventories and practices with Member States; • Assist Member States in the use of best available techniques and best environmental practices in solid waste management; • Continue to foster the sharing of experience, lessons learned and success stories among Member States and key stakeholders through existing regional and global platforms.
4/9 on Addressing single-use plastic products pollution	Chemicals & Waste	Requests UNEP with other UN entities to: • Make available information on action already taken by Member States to address plastic pollution and the full life-cycle environmental impact of plastic products in comparison with the full life-cycle environmental impact of alternative materials.
4/11 on Protection of the marine environment from land-based activities	Marine & Coastal	Requests UNEP to: • Requests the Executive Director of the United Nations Environment Programme to provide technical assistance, subject to the availability of resources, through, inter alia, the regional seas programmes, the Global Partnership on Marine Litter, the Global Wastewater Initiative and the Global Partnership on Nutrient Management of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities.
4/14 on Sustainable nitrogen management	Chemicals & Waste	Requests UNEP to: • Support Member States by sharing existing information and knowledge in the development of an evidence-based and intersectoral coherent approach to domestic decision-making to promote sustainable nitrogen management, where appropriate.
4/16 on Conservation and sustainable management of peatlands	Soil	Requests UNEP to: • In consultation with the secretariat of the Ramsar Convention, to coordinate efforts to create a comprehensive and accurate inventory of global peatlands, which will be crucial as a basis for identifying the extent of peatlands globally, determining appropriate interventions, understanding the value and potential of carbon sequestration and planning for sustainable peatlands management.
4/23 on Keeping the world environment under review: enhancing the United Nations Environment Programme sciencepolicy interface and	Cross-cutting	Requests UNEP to: • Assist Member States in developing their national environmental data management capacities and their environmental monitoring systems with regard to air and water quality, deforestation, marine litter and environmental security, and their ability to use data analysis to support evidence-based decision-making;

endorsement of the Global Environment Outlook			
5/3 on Future of the Global Environment Outlook:	Cross-cutting	Requests UNEP to: • Establish an ad hoc intergovernmental and multi-stakeholder advisory group, governed by the rules of procedure of the Environment Assembly, effectiveness of the global policy response, evaluates future perspectives for all five environmental themes (air, biodiversity, oceans, land, fresh water) addressed in previous Global Environment Outlook assessments, and evaluates the drivers of environmental change and the interactions across these environmental themes, while benefitting from but not duplicating existing assessments, and supplemented, as needed, by Global Environment Outlook thematic assessments at the request of the Environment Assembly, to fill knowledge gaps.	
5/8 on science- policy panel to contribute further to the sound management of chemicals and waste and to prevent pollution	Chemicals & Waste	 Requests UNEP to: Cooperate closely with the secretariats of relevant multilateral environmental agreements and relevant international organizations and bodies, as appropriate; Convene the meetings of the ad hoc open-ended working group and invite the World Health Organization to play a role, as appropriate; Upon completion of proposals prepared by the achoc open-ended working group, to convene an intergovernmental meeting for the purpose of considering the establishment of a science-policy panel; Report on the outcomes of the ad hoc open-ended working group to the United Nations Environment Assembly and to relevant multilateral agreements, other international instruments and intergovernmental bodies. 	
5/11 on Enhancing circular economy as a contribution to achieving sustainable consumption and production	Chemicals & Waste	Requests UNEP with other UN entities to: • Facilitate collaboration among Member States and members of specialized agencies in research, capacity-building, knowledge management and the sharing of best practices for the promotion of innovative pathways for sustainable consumption and production, including the circular economy, and to facilitate a conversation on natural resources and materials in the context of the circular economy.	
		Mandates relevant to action area 2: Implementation	
3/7 on Marine litter and microplastics	Marine & Coastal	Requests UNEP to: • Facilitate the establishment and implementation of regional and national action plans to prevent and reduce litter and microplastics in the marine environment; • Provide advice on the most environmentally sound and cost-effective measures to prevent and reduce litter and microplastics; • Convene meetings of and provide secretariat support for an ad hoc open-ended expert group to (i) examine the barriers to combating marine plastic litter and microplastics; (ii) identify response options; (iii) identify their costs and benefits; (iv) identify their feasibility and effectiveness; (v) identify potential options for continued work, with at least one meeting of the Ad Hoc Open-ended Expert Group to be convened before the fourth session of the Environment Assembly.	
3/9 on Eliminating exposure to lead paint and promoting environmentally sound management of waste lead-acid batteries	Chemicals & Waste	 Requests UNEP with other UN entities to: Continue assisting countries in strengthening and enhancing national, subregional and regional implementation of environmentally sound management of waste, including by providing capacity building, in close cooperation with the Basel Convention Secretariat; Assist countries in eliminating the use of lead paint, in particular by providing tools and capacity building for developing national legislation and regulations. 	
3/8 on Preventing and reducing air pollution to improve air quality globally	Air	Requests UNEP with other UN entities to: • Strengthen technical support provided by global and regional networks and enhance institutional capacity to develop air pollution action plans Requests UNEP to: • Support developing countries in expanding the use of cleaner fuels for cooking; • Assist in the implementation of the Global Strategy to Introduce Low-Sulphur Fuels and Cleaner Diesel Vehicles; • Assist in the implementation of Roadmap for Clean Fuel and Vehicle Standards in Southern and Western Africa and the African Sustainable Transport Forum Action Plan.	
3/6 on Managing soil pollution to achieve sustainable development	Soil	Requests UNEP with other UN entities to: • Elaborate technical guidelines for the prevention and minimization of soil contamination; • Provide support to Governments' efforts to strengthen and coordinate national and regional policies and legislation to curb soil pollution; • Cooperate in efforts geared at preventing, reducing and managing soil pollution.	

3/10 on Addressing water pollution to protect and restore water related ecosystems	Water	 Requests UNEP with other UN entities to: Assist developing countries by strengthening their capacity to reach the target of halving by 2030 the amount of untreated wastewater reaching water bodies. Address issues related to water pollution and build upon the 2016 report, A Snapshot of the World's Water Quality, and considering the recommendations made by the analytical brief "Towards a Worldwide Assessment of Freshwater Quality". Requests UNEP to: Support member States in developing programmes that invest in the management of land and ecosystems to prevent pollution of water sources; Develop tools to support countries in their efforts to address water pollution, implement integrated water resources management approaches and address water-related impacts of disasters.
3/2 on Pollution mitigation by mainstreaming biodiversity into key sectors	Cross-cutting	Requests UNEP to: • Cooperate with the Secretariat of the Convention on Biological Diversity on the implementation of the decisions of the Conference of the Parties to the Convention on Biological Diversity at its thirteenth meeting, especially on aspects related to pollution mitigation through mainstreaming biodiversity into relevant sectors.
2/7 on Sound management of chemicals and waste	Chemicals & Waste	 Requests UNEP with other UN entities to: Coordinate with relevant international stakeholders and support member States on policies and actions for the sound management of chemicals and waste; Support the intersessional process agreed on at the fourth session of the International Conference on Chemicals Management to prepare recommendations on the sound management of chemicals and waste beyond 2020, inter alia, to foster the involvement of relevant industry stakeholders; Strengthen and enhance the work of the International Environmental Technology Centre and capacity-building for national- and municipal-level waste policies, strategies and action plans. Take measures to promote the sound management of chemicals and waste. Requests UNEP to: Support countries, particularly developing countries, in the implementation of the integrated approach to financing for the sound management of chemicals and waste; Ensure full integration of environmentally sound management of waste in UNEP strategies and policies; Facilitate capacity-building and technology demonstration projects to promote the "3R" (reduce, reuse and recycle) approach; Provide capacity-building in developing countries, in particular least developed countries, to implement regulatory frameworks and programmes for the recycling of waste lead-acid batteries; Solicit feedback from countries and other stakeholders on the proposed plan for updating the Global Chemicals Outlook; Ensure that the updated Global Chemicals Outlook addresses emerging issues.
2/11 on Marine plastic litter and microplastics	Marine & coastal	Requests UNEP to: • Evaluate, and possibly implement, the Executive Director's recommendations on the Assembly's resolution 1/6 on marine plastic debris and microplastics including through strengthened national, regional and international measures, cooperation and action plans.
1/5 on Chemicals and waste	Chemicals & Waste	Requests UNEP to: • Establish and administer the Special Programme trust fund to support institutional strengthening at the national level for implementation of the Basel, Rotterdam and Stockholm Conventions, the Minamata Convention and SAICM, and to provide a secretariat to deliver administrative support to the Programme; • Continue to support SAICM, Requests UNEP with other UN entities to: • Invite the director-general of the World Health Organization to assume a leading role in SAICM and to provide resources to its secretariat; • Continue to build capacity on lead paint through possible regional workshops.
1/7 on Strengthening the role of UNEP in promoting air quality	Air	Requests UNEP to: • Undertake strengthened capacity-building activities on air quality to support Governments.
4/1 on Innovative pathways to achieve sustainable consumption and production	Chemicals & Waste	Requests UNEP to: • To undertake a study based on a life-cycle approach, profiting from the work of the International Resource Panel and the One Planet network, on the potential of current sustainable economic models for achieving sustainable consumption and production in certain sectors, such as the plastics, textiles and construction sectors, including through value retention processes, such as direct reuse, repair, refurbishment and remanufacturing. Requests UNEP with other UN entities to:

		 To evaluate how to promote the availability of appropriate information in the value chain to favour sound and safe recycling of waste.
4/2 on Promoting sustainable practices and innovative solutions for curbing food loss and waste	Chemicals & Waste	Requests UNEP to: • Provide technical support to assist Member States in implementing the present resolution; • Promote food loss and waste reduction and support countries in exploring opportunities to collaborate with United Nations organizations and international financial institutions in line with their existing mandates and budgets.
5/2 on Sustainable nitrogen management	Cross-cutting	Requests UNEP to: • Support Member States in the development of national action plans for sustainable nitrogen management, subject to the availability of resources.
5/12 on Environmental aspects of minerals and metals management	Chemicals & Waste	Requests UNEP to: • Feed into a global intergovernmental meeting, with the aim of developing non-prescriptive proposals to enhance the environmental sustainability of minerals and metals along their full life cycle, in line with the 2030 Agenda for Sustainable Development.
3/1 on Pollution mitigation and control in areas affected by armed conflict or terrorism	Cross-cutting	Requests UN entities to: • Collaborate closely with the United Nations Environment Programme in providing technical assistance upon the request of States affected by pollution resulting from armed conflict or terrorism to implement international agreements on the environmentally sound management of chemicals and wastes and to help build effective environmental governance.
		Mandates relevant to action area 3: Infrastructure
3/9 on Eliminating exposure to lead paint and promoting environmentally sound management of waste lead-acid batteries	Chemicals & Waste	Requests UNEP with other UN entities to: • Consider revising the "Technical Guidelines for the Environmentally Sound Management of Waste Lead-acid Batteries" regarding applying new technologies (Conference of the Parties to the Basel Convention).
3/10 on Addressing water pollution to protect and restore water related ecosystems	Water	Requests UNEP with other UN entities to: • Work with Governments in creating an enabling environment for addressing water pollution, including sustainable wastewater management, which encompasses supportive policies, legislation and regulations, tailored technologies and innovative financial mechanisms.
4/18 on Poverty- environment nexus	Air	Requests UNEP with other UN entities to: • Promote sustainable energy solutions that support poverty eradication and sustainable development, enable access to affordable, reliable and sustainable energy, take into account social and cultural factors, and empower women and youth; such solutions include integrated energy and environment policies, on-grid and off-grid investments and sustainable biomass use.
		Mandates relevant to action area 4: Awareness
3/8 on Preventing and reducing air pollution to improve air quality globally	Air	Requests UNEP to: • Support developing countries by cooperating with partners to promote education and public awareness • Deliver information to stakeholders on the Climate and Clean Air Coalition
3/1 on Pollution mitigation and control in areas affected by armed conflict or terrorism	Cross-cutting	Requests UNEP to: • For the Executive Director of UNEP to continue undertaking field visits to affected areas, upon the invitation of the affected State.

2/9 on Prevention, reduction and reuse of food waste	Chemicals & Waste	 Requests UNEP with other UN entities to: Strengthen efforts to disseminate information on waste management, including on the technologies available to prevent food loss and enable the reuse of food waste (with FAO); Continue to raise awareness of the environmental dimensions of the problem of food waste, and of potential solutions and good practices for preventing and reducing food waste (with FAO). 			
1/7 on Strengthening the role of UNEP in promoting air quality	Air	Requests UNEP to: • Raise awareness of risks of air pollution and the multiple benefits of improved air quality			
4/1 on Innovative pathways to achieve sustainable consumption and production	Chemicals & Waste	Requests UNEP with other UN entities to: • Consider establishing the theme for a future World Environment Day focusing on efforts to achieve sustainable consumption and production, including, but not limited to, circular economy and other sustainable economic models;			
4/5 on Sustainable infrastructure	Cross-cutting	Requests UNEP to: Continue its work of facilitating coordinated efforts in all regions to promote the development and use of appropriate sustainability criteria for infrastructure as a means of attaining sustainable consumption and production while maintaining an intact natural environment and implementing the goals and targets of the 2030 Agenda for Sustainable Development.			
		Mandates relevant to action area 5: Leadership			
3/7 on Marine litter and microplastics	Marine & coastal	Requests UNEP to: • Strengthen the contribution of UNEP to the Global Partnership n Marine Litter. Requests UNEP with other UN entities to: • Increase and coordinate action to prevent and reduce marine litter and microplastics and their harmful effects.			
3/8 on Preventing and reducing air pollution to improve air quality globally	Air pollution	Requests UNEP with other UN entities to: • Support the enhancement of regional cooperation to address air pollution and organize regional communities of practice for air quality management; • Provide a platform for cooperation and information-sharing and to house capacity-building resources and online tools; Requests UNEP to: • Assess gaps in, and opportunities for, mitigation and cooperation with a view to advancing			
3/10 on Addressing water pollution to protect and restore water related ecosystems	Water	shared response to addressing air pollution globally. Requests UNEP with other UN entities to: • Work with Governments in creating an enabling environment for addressing water pollution, including sustainable wastewater management, which encompasses supportive policies, legislation and regulations, tailored technologies and innovative financial mechanisms.			
3/2 on Pollution mitigation by mainstreaming biodiversity into key sectors	Cross-cutting	Requests UNEP to: • Promote close coordination, collaboration and synergies related to mainstreaming biodiversity.			
2/7 on Sound management of chemicals and waste	Chemicals & Waste	Requests UNEP with other UN entities to: • Work with the director-general of the World Health Organization to enhance that organization's engagement with the emerging issue of environmentally persistent pharmaceutical pollutants. Requests UNEP with other UN entities to: • Cooperate with Governments, with the private sector, including industry, and with other non-governmental organizations to continue work on lead and cadmium.			
2/9 on Prevention, reduction and reuse of food waste	Chemicals & Waste	Requests UNEP with other UN entities to: • Support the development of multi-stakeholder initiatives that focus on food waste reduction and prevention along the whole food value chain (with FAO); • Enhance cooperation with other relevant United Nations agencies to support communities of practice that focus on food loss and waste reduction (with FAO); • Continue to participate in ongoing international initiatives to improve the measurement of food loss and waste (with FAO).			

2/11 on Marine	Marine &	Requests UNEP with other UN entities to:		
plastic litter and microplastics	coastal	 Coordinate work under the aegis of the Convention on Biological Diversity, the International Whaling Commission, the Convention on the Conservation of Migratory Species of Wild Animals and the Convention for the Protection of the Natural Resources and Environment of the South Pacific Region with other relevant work in the framework of the Global Partnership on Marine Litter. 		
1/7 on Strengthening the role of UNEP in promoting air quality	Air	Requests UNEP with other UN entities to: • Explore opportunities for strengthened cooperation on air pollution within the United Nations system		
4/6 on Marine plastic litter and microplastics	Marine & coastal	Requests UNEP to: • To establish a multi-stakeholder platform within the United Nations Environment Programme to take immediate action towards the long-term elimination, through a life-cycle approach, of discharges of litter and microplastics into the oceans.		
4/8 on Sound management of chemicals and waste	Chemicals & Waste	 Requests UNEP to: Strengthen cooperation and avoid duplication of action undertaken by member organizations of the Inter-Organization Programme for the Sound Management of Chemicals under their own mandates to achieve target 12.4 of the 2030 Agenda, and all other goals and targets of the 2030 Agenda that are affected by the sound management of chemicals and waste. Step up technical and capacity-building assistance to Member States to meet goals and targets of the 2030 Agenda Enhance the support provided to the Strategic Approach to International Chemicals Management in preparation for the fifth meeting of the International Conference on Chemicals Management, including through the provision of sufficient staff and resources for the secretariat of the Strategic Approach. Requests UNEP with other UN entities to: Synthetize the analysis of best practice in sustainable chemistry produced by the Environment Programme into manuals on green chemistry and sustainable chemistry. 		
4/9 on addressing single-use plastic products pollution	Chemicals & Waste	Requests UNEP with other UN entities to: • Support Member States in the development and implementation of national or regional action plans to address the environmental impact of single-use plastic products; • Facilitate and coordinate technical and policy support to Governments, in particular those of developing countries with other stakeholders, in respect of the environmental impact of single-use plastic products and the promotion of innovative and environmentally friendly solutions for their replacement, taking into account their full environmental impact.		
4/14 on Sustainable nitrogen management	Chemicals & Waste	 Requests UNEP with other UN entities to: Consider the options for facilitating improved coordination of policies across the global nitrogen cycle at the national, regional and global levels, including consideration of the case for establishing an intergovernmental mechanism for coordination of nitrogen policies, based primarily on existing networks and platforms, and consideration of the case for developing an integrated nitrogen policy, which could enhance recognition of the need for common action across multiple policy domains; Support, in close collaboration with relevant United Nations bodies, including FAO, exploration of the options for better management of the global nitrogen cycle and how they could help to achieve the Sustainable Development Goals; Coordinate existing platforms for assessment of the multiple environmental, food and health benefits of possible goals for improved nitrogen management, while ensuring coordinated management of relevant data to allow development of an integrated and sustainable nitrogen management approach and identify current information gaps, including in quantifying the net economic benefits for food and energy production; freshwater, coastal and marine environmental quality; air quality; greenhouse gas mitigation; and stratospheric ozone depletion mitigation, all underpinned by the development of reference values; Facilitate, with relevant United Nations bodies, including FAO the provision of appropriate training and capacity for policymakers and practitioners to develop widespread understanding and awareness of nitrogen cycling and opportunities for action. 		
4/21 on Implementation plan "Towards a pollution-free planet"	Cross-cutting	Requests UNEP with other UN entities to: • Coordinate and monitor the delivery of the implementation plan in the context of the current and relevant future programmes of work and budget of the Environment Programme. Requests UNEP to: • Fully and effectively leverage the capacity of the regional and subregional offices of the United Nations Environment Programme and its partnerships with other relevant United Nations bodies and partners in contributing to the delivery of the implementation plan;		

4/22 on Implementation and follow-up of United Nations Environment Assembly resolutions	Cross-cutting	Requests UNEP with other UN entities to: Develop a monitoring mechanism to track and assess the implementation of Environment Assembly resolutions by the Programme in the framework of the programme of work and budget that: (i) builds on and improve existing formats for reporting and monitoring; (ii) provides an inventory and a brief summary of the implementation of Environment Assembly resolutions via a dedicated website; (c) identifies linkages between each resolution and the programme of work and budget; (d) provides links to existing reports related to Environment Assembly resolutions; (e) provides the opportunity for Member States to report voluntarily on national implementation efforts; (f) summarizes specific challenges that have hindered implementation efforts, including those of Member States, using available information; Requests UNEP to: Propose to the Committee of Permanent Representatives at its 146th meeting options for an improved framework for reporting on the implementation of Environment Assembly resolutions, to be integrated with reporting on the programme of work and budget.		
5/6 Biodiversity and health:	Cross-cutting	Requests UNEP with other UN entities to: • Further assist Member States and members of specialized agencies in taking measures to institute actions to enhance the availability, quality and timeliness of data for monitoring and surveillance, capacity and capability across One Health sectors, and support timely detection and responses to health risks linked to environmental factors, in accordance with national circumstances and priorities and to foster cooperation to address the impact of biodiversity loss, climate change and other related environmental crises to global health in accordance with the One Health approach.		
5/14 End plastic pollution: towards an international legally binding instrument.	Chemicals & Waste	Requests UNEP to: • Convene an intergovernmental negotiating committee, to begin its work during the second half of 2022, with the ambition of completing its work by the end of 2024; Decides that the intergovernmental negotiating committee is to develop an international legally binding instrument on plastic pollution.		

Source: Own elaboration based on the Implementation Plan (UNEP, 2017) and data gathered through the mapping of efforts process.

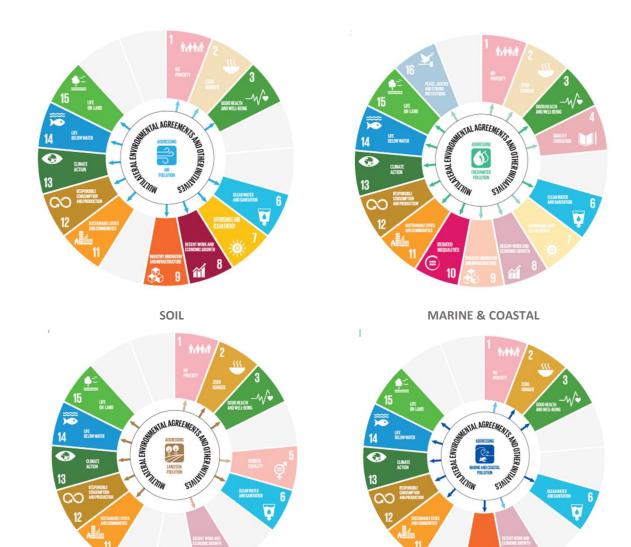
Addressing Pollution in the context of the 2030 Agenda for Sustainable Development

In 2015, the UN Member States adopted the 2030 Agenda for Sustainable Development with its 17 Sustainable Development Goals (SDGs). The SDGs provide an opportunity to accelerate the implementation of targeted and time-bound actions on pollution, which have been hitherto limited and inadequate. Furthermore, achieving pollution reducing goals can help meeting other SDG targets as pollution prevention, control and reduction create multiple opportunities for improving health, equality and production indicators.

Pollution is linked to all of the SDGs, whether it is in a direct or indirect manner. Figure 2 reflects goals most related to each environmental media: air, water, soil and marine & coastal. Table 4 further details the nexus between SDG and pollution, including the most related targets.

Figure 2 Sustainable Development Goals related in relation to pollution and environmental media

AIR WATER



Source: How addressing pollution will help reach the SDGs (UNEP, n.d.) $\,$

Table 4 Sustainable Development Goals and their relationship with pollution

Goal	Relation with pollution	Related targets
1: End poverty in all its forms everywhere	Indirect: Addressing pollution helps to reduce poverty, as it improves health and worker productivity and workdays. Addressing pollution also protects the poor, as these are often most exposed to pollution for lack of options in where they work, live or how they cook or what they eat or drink.	1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance 1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.
2: End hunger, achieve food security and improved nutrition	Indirect: Addressing pollution in all its forms helps to fight hunger and ensure the provision of safe food	2.4: By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for

and promote sustainable agriculture	year-round as it tackles the food safety issues of irrigation with untreated wastewater or sewage as well as the growing of food on contaminated soil.	adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality
3: Ensure healthy lives and promote well- being for all at all ages	Indirect: Human health and the environment are compromised by the mismanagement of chemicals and waste, which form a fundamental obstacle to the achievement of sustainable development.	 3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination; 3.d: Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks
4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.	Indirect: Promoting quality education allows people to acquire the knowledge and skills needed to promote sustainable development and sustainable lifestyle, including reducing pollution.	4.7: By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.
5: Achieve gender equality and empower all women and girls	Indirect: In all actions against pollution, it is also important to ensure women's equal participation, decision-making and access to opportunities and resources.	5.a: Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws.
6: Ensure availability and sustainable management of water and sanitation for all	Direct: Improving water management around the world directly reduces pollution in freshwater as well as marine and coastal dimensions.	6.3: By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally; 6.6: By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes; 6.a: By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies; 6.b: Support and strengthen the participation of local communities in improving water and sanitation management.
7: Ensure access to affordable, reliable, sustainable and modern energy for all	Direct: Clean household energy and access to affordable, reliable, sustainable and modern energy can cut air pollution indoors.	7.2: By 2030, increase substantially the share of renewable energy in the global energy mix 7.a: By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology.
8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Indirect: Decoupling economic and human activity from resource use can reduce pollution derived from industrial and agricultural production.	8.4: improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead; 8.9: By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products.
9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	Indirect: Upgrading industries' infrastructure can minimize emission of pollutants. Pollution avoidance through the adoption of green technologies and ecosystem-based solutions fosters innovation and sustainability in the industry and infrastructure sectors.	9.4: By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.
10: Reduce inequality within and among countries	Indirect: Pollution governance and actions can ensure that no country has to bear a disproportionate share of the harmful effects of pollution.	No relevant related target identified

11: Make cities and human settlements inclusive, safe, resilient and sustainable	Direct: Improving cities' transport and waste and water management has a direct impact on global pollution.	11.1: By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums; 11.2: By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons 11.6: By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management 11.b: By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels
12: Ensure sustainable consumption and production patterns	Direct: Resource efficiency and circularity in materials reduce pollution and waste generation.	12.2: By 2030, achieve the sustainable management and efficient use of natural resources; 12.3: By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses; 12.4: By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment; 12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse; 12.6: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle; 12.b: Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products; 12.c: Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities.
13: Take urgent action to combat climate change and its impacts	Direct: clean energy, low carbon and GHG mitigation policies reduce air pollution	13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning; 13.a: Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible.
14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development	Direct: Action on marine pollution reduces bioaccumulation of toxic substances and habitat destruction, and helps maintain healthy fisheries and ecosystems	14.1: By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution; 14.2: By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans; 14.5: By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information; 14.a: Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of

		developing countries, in particular small island developing States and least developed countries; 14.c: Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in United Nations Convention on the Law of the Sea, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of "The future we want".
15: Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.	Direct: Achieving and ideally exceeding no net loss in land-based natural capital through conservation, sustainable land management and ecological rehabilitation and restoration helps maintain healthy ecosystems.	15.1: By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements. 15.2: By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally. 15.3: By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world.
16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	Indirect: Good pollution-related governance reduces environmental burdens and injustices and can enhance the availability of "saved" resources for the underserved.	16.7: Ensure responsive, inclusive, participatory and representative decision-making at all levels 16.10: Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements.
17: Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development	Global partnerships to address pollution can have positive impacts on health, jobs, worker productivity the environment and well-being	17.7: Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed

Source: Own elaboration based on Sustainable Development Goals.

Though there is an evident link among the SDGs and pollution, an under-representation of nature and pollution actions in UN Sustainable Development Cooperation Framework (UNSDCF) was raised by a respondent of the survey, causing a limited support for circular economy and pollution prevention and reduction, including waste management and wastewater treatment in developing countries, where the population growth is expected to exacerbate the pollution crisis in coming years. The UNSDCF is a strategic, medium-term results framework that describes the collective vision and response of the UN system to national development priorities and results based on normative programming principles.

Mapping of Existing Efforts

The UN System addresses pollution through various instruments and processes, including programmes, strategies, conventions and resolutions, as well as specific mandates of the UN entities and related activities. This mapping covers efforts to tackle pollution in its different dimensions: air; water; soil; marine and coastal; and chemicals and waste. Relevant examples of current and past initiatives, programmes and projects of UN entities are provided.

In this chapter, entities are grouped according to broad thematic areas and sectors (see Table 5), based on the main focus of their activities in the topic of pollution. This classification follows the structure used in the EMG Marine and Litter Microplastics Report (United Nations Environment Management Group, 2022).

Table 5 Classification of UN System entities

International Instruments and Coordination Mechanisms	Environment and development	Agriculture and labour	Business, trade and lifecycle	Health and sanitation	Research and training	Funding and Financial Mechanisms
Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora UN Department of Operational Support Secretariat of the UN Convention to Combat Desertification (UNCCD) United Nations Department of Economic and Social Affairs, Division for Sustainable Development Ozone Secretariat Minamata Convention on Mercury Secretariat of the Basel, Rotterdam and Stockholm Conventions Secretariat of the Convention on Biological Diversity Secretariat of the Convention on Migratory Species Ramsar Convention on Migratory Species Ramsar Convention on Wetlands Secretariat of the UN Framework Convention on Climate Change	Office Disaster Risk Reduction Office for the Coordination of Humanitarian Affairs United Nations Educational Scientific and Cultural Organization United Nations High Commissioner for Refugees United Nations Entity for Gender Equality and Empowerment of Women United Nations Environment Programme IMO International Maritime Organization United Nations Development Programme Economic and Social Commission for Migration Office of the High Commission for Africa United Nations Economic and Social Commission for Latin America and the Caribbean Economic and Social Commission for Asia and the Pacific	Food and Agriculture Organization International Labour Organization World Food Programme Food and Agriculture Organization Food Programme Food Programme	International Civil Aviation Organization International Telecommunications Union Universal Postal Union World Intellectual Property Organization United Nations Human Settlements Programme United Nations Industrial Development Organization World Trade Organization United Nations Conference on Trade and Development International Trade Centre (UNCTAD – WTO) World Tourism Organization United Nations Office for Project Services	World Health Organization United Nations Children's Fund United Nations Office on Drugs and Crime	United Nations Institute for Training and Research United Nations University International Atomic Energy Agency World Meteorological Organization United Nations Office for Outer Space Affairs	International Monetary Fund United Nations Population Fund The Global Environment Facility International Fund for Agricultural Developme The World Bank -The World Bank Group

Source: Own preparation based on the classification used in the EMG Marine Litter and Microplastics Report (United Nations Environment Management Group , 2022)

International Instruments and Coordination Mechanisms

Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora

Identified impact on the different dimensions of pollution

AIR IND WATER NO IMPACT IDENTIFIED SOIL NO MARINE & NO IMPACT IDENTIFIED COASTAL CHEMICALS & NO IMPACT IDENTIFIED WASTE DENTIFIED

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) works by subjecting international trade in specimens of selected species to certain controls. All import, export, re-export and introduction from the sea of species covered by the Convention has to be authorized through a licensing system.

Each Party to the Convention must designate one or more Management Authorities in charge of administering that licensing system and one or more Scientific Authorities to advise them on the effects of trade on the status of the species. The CITES Secretariat is administered by UNEP.

Cites Strategic Visions states that the Secretariat shall undertake a comparative analysis in order to illustrate the linkages between the adopted CITES Strategic Vision 2021-2030 and the goals within the 2030 Agenda for Sustainable Development and, once adopted, the post-2020 biodiversity framework, and present their analysis to the Standing Committee for their information (CITES Secretariat, n.d.).

From the desk research it is seen that there is a mandate to work on environmental issues, without making a special focus on pollution. A more in-depth analysis that includes interviews with members of the organization would be necessary to find out if the agency is conducting activities related to pollution and its characteristics.

UN Department of Operational Support

Identified impact on the different dimensions of pollution:

AIR DIRECT WATER INDIRECT SOIL INDIRECT COASTAL OPENITION WASTE IMPACT COASTAL COASTAL OPENITION WASTE

The Department of Operational Support (DOS) assists UN field missions and other UN Secretariat entities, in improving their environmental management practices through various strategic initiatives and policies, and through technical assistance, advisory services, capacity building programs, and knowledge sharing fora.

DOS launched a comprehensive six-year Environment Strategy for Peace Operations in 2016 which aims to "deploy responsible missions that achieve maximum efficiency in their use of natural resources and operate at minimum risk to people, societies and ecosystems, contributing to a positive impact on these wherever possible" (Welcome to the United Nations, n.d.). The Strategy responds to existing mandates from the membership of the UN that emphasize the importance of environmental management. It focuses on five priority areas: energy, water and wastewater, solid waste, environmental management systems, and wider impact.

In addition, DOS, together with the Department of Peace Operations (DPO) and the Department of Political and Peacebuilding Affairs (DPPA), have issued a revised Environmental Policy in April 2022 (last version was issued in 2009) which outlines specific performance standards, provides operational guidance to missions in reducing their overall environmental footprint, and aligns with the broader Environmental Policy for the UN Secretariat (ST/SGB/2019/7).

Over the past six years, through the implementation of the Environment Strategy and the Environmental Policy, field missions have paid close attention to water and wastewater management, and solid waste management, i.e., reducing the practice of open burning, and using incineration that meets strict emissions standards. Efforts were also made to enhance environmental management systems, improve energy efficiency, and transition to renewable energy. Across the board, environmental management performance has steadily improved, mitigating water and soil pollution, and ensuring that remediation measures are taken as needed.

As the Environment Strategy ends in June 2023, DOS is in the process of developing, in consultation with Member States, a "way forward" for environmental management in peacekeeping, in line with the request of the General Assembly in A/RES/76/274.

At the same time, DOS serves as the co-chair – with the Department of Management Strategy, Policy and Compliance (DMSPC) – of the UN Secretariat Steering Group on Environmental Sustainability Management. The Steering Group aims to "provide an overarching coordination mechanism for environmental management systems (EMS) across the Secretariat, and a framework for setting policies, priorities and guidelines and for sharing and leveraging positive experiences and practices", as set out in the Action Plan for integrating sustainable development practices into Secretariat-wide operations and facilities management (A/72/82).

DOS aims to build on the progress achieved so far and continue to contribute to the wider UN System's pollution-free efforts through its support in environmental management to field missions and other UN Secretariat entities.

Secretariat of the UN Convention to Combat Desertification

Identified impact on the different dimensions of pollution

AIR DIRECT WATER NO IMPACT IDENTIFIED SOIL NO MARINE & NO IMPACT IDENTIFIED SOIL DENTIFIED COASTAL CHEMICALS & NO IMPACT IDENTIFIED WASTE DISTRIBUTION.

The UN Convention to Combat Desertification (UNCCD) is the only legally binding framework set up to address desertification and the effects of drought. There are 197 Parties to the Convention, including 196 country Parties and the European Union. The Convention – based on the principles of participation, partnership and decentralization – is a multilateral commitment to mitigate the impact of land degradation, and protect our land so we can provide food, water, shelter and economic opportunity to all people. The Secretariat acts as an advocate for land, ensuring land-related issues, from land degradation neutrality to drought resilience are put front and centre on the development agenda. The Secretariat champions for healthy, productive and accessible land around the world (UNCCD Secretariat, n.d.).

Soil pollution and contamination are one of the factors contributing to land degradation related to deterioration of the chemical property of the soil, which is defined in the convention text in Article 1 and the Convention's Annex IV: Regional Implementation Annex for the Northern Mediterranean and Annex V: Regional Implementation Annex for Central and Eastern Europe as Particular condition of the annex regions (See also page 11 the content in the table relevant to UNCCD).

Decision 20/COP14 at its OP5 requests "the secretariat to update the list of direct and indirect drivers of land degradation listed in United Nations Convention to Combat Desertification reporting templates to reflect those listed in the annex to this decision in order to reflect the influence of consumption and production patterns and flows, accounting for different levels of confidence associated with each driver". The annex to this decision listed mining related soil pollution and contamination as linked drivers to land degradation. Curation of causes of chemical priority change of the soil will contributing to reduction of soil pollution.

- UNCCD co-organized with partners at regional level the world soil day event with focus including soil pollution, such as the event hosted by Panama in 2019,
- UNCCD offers online course through its capacity marketplace on soil science and technology: land degradation and soil pollutants;
- UNCCD facilitates United Nations Coalition of Sand and Dust Storms jointly with UNEP and supports regional efforts to mitigate sources of Sand and Dust Storms (SDS) in northeast Asia through restoration of degraded land contributing to reduction of long-range air pollution which caused by SDS (see decision 31/COP.13, decision 9/COP.12 decision 3/COP.12 and decision 25/COP.14).

The Global Land Outlook in its 2022 edition included several key messages around pollution, one of them being: Efforts to reduce soil, water, and air pollution from land use will improve human and environmental health outcomes. Sustainable land and water management is critical to accelerate the transition to a circular economy that significantly reduces pollution and waste.

In addition to the activities linked to pollution tackling identified, the UNCCD has recently participated in the organization of a series of discussions with focus on the gender differentiated impacts and inequalities perpetuated by climate change; climate change and environmental degradation; impacts of pollution on human life and the environment (UNCCD Secretariat, n.d.).

United Nations Department of Economic and Social Affairs, Division for Sustainable Development Identified impact on the different dimensions of pollution

Rooted in the United Nations Charter and guided by the transformative 2030 Agenda for Sustainable Development, the UN Department of Economic and Social Affairs (UN DESA) upholds the development pillar of the United Nations.

The Division for Sustainable Development Goals, as mandated by GA resolution 70/299, acts as the Secretariat for SDGs, focusing on providing substantive support and capacity building to the 17 Sustainable Development Goals and their related thematic issues, including water, energy, climate, ocean, urbanization, transport, science and technology. The Division contributes to the intergovernmental processes on the 2030 Agenda, including those under the General Assembly, the Economic and Social Council and the High-level Political Forum, with its substantive analytical work on thematic issues of the Sustainable Development Goals. Its main activities include: Support to UN Intergovernmental Processes and the High-level Political Forum on Sustainable Development; Policy analysis; Capacity development, including supporting national voluntary reviews, Inter-Agency coordination; Stakeholder engagement, partnerships, communication and outreach, and Knowledge management.

UN DESA organizes its work in seven key topics, including Climate Action. In this line, it helps coordinate conferences like the United Nations Global Sustainable Transport Conference and UN Ocean Conference. In December 2021, the UN Department of Economic and Social Affairs (UN DESA) launched the UN DESA Climate Review which also includes efforts for a clean ocean and clean energy (United Nations, Department of Economic and Social Affairs Climate Review, 2021).

UN Environment Programme – Ozone Secretariat

Identified impact on the different dimensions of pollution

AIR DIRECT WATER INDIRECT SOIL INDIRECT MARINE & INDIRECT COASTAL WASTE

MARINE & INDIRECT COASTAL WASTE

The Ozone Secretariat housed within UNEP is the administrative office for two very important ozone protection agreements, the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer.

The Vienna Convention is a framework convention that lays out principles agreed upon by many parties. It does not, however, require countries to take control actions to protect the ozone layer (this came later in the form of the Montreal Protocol). It aimed to promote cooperation among nations by exchanging information on the effects of human activities on the ozone layer. Today, the Vienna Convention is still making progress, including on Research and Systematic observations as well as financial and administrative matters.

The Montreal Protocol on Substances that Deplete the Ozone Layer is a global agreement to protect the Earth's ozone layer by phasing out the chemicals that deplete it. This phase-out plan includes both the production and consumption of ozone-depleting substances (ODSs), most of which are also potent greenhouse gases. The Protocol's Kigali Amendment, adopted in 2016, called for the phase-down of the production and consumption of hydrofluorocarbons (HFCs). Although HFCs do not deplete the ozone layer, they are known to be powerful greenhouse gases. The Protocol has successfully met its objectives thus far and continues to safeguard the ozone layer and protect the climate.

The Ozone Secretariat organises conferences and meetings for the Vienna Convention and the Montreal Protocol, manages the implementation of decisions resulting from these conventions and meetings, provides stakeholders with data and information on the production and consumption of ozone depleting substances and provides governments, organizations and individuals with information on how they can protect the ozone layer as well.

The Secretariat coordinates several activities and facilitates the work of various advisory bodies that promote the protection of the ozone layer and climate, and thus protect against pollution, such as:

- The Scientific Assessment Panel (SAP), which assesses the status of the depletion of the ozone layer and relevant atmospheric science issues.
- The Environmental Effects Assessment Panel (EEAP), which assesses the various effects of ozone layer depletion.
- The Technology and Economic Assessment Panel (TEAP), which provides technical information related to ozone- and climate-friendly substitutes and alternative technologies that can be employed to enable the phase-out of Ozone Depleting Substances (such as CFCs and halons) and HFCs in order to protect the ozone layer and climate.
- Pursuant to Article 6 of the Montreal Protocol on Substances that Deplete the Ozone Layer, the preparation
 of comprehensive scientific and technical reports by the three above-mentioned Assessment Panels,
 consisting of hundreds of top scientists and experts from around the world, every four years to assist parties
 take informed decision on the protection of the ozone layer and the climate.
- The operation of the General Trust Fund for Financing Activities on Research and Systematic Observations
 Relevant to the Vienna Convention, which supports, through voluntary contributions, the implementation
 of approved projects on monitoring ozone, solar ultraviolet radiation and climatic parameters.
- Voluntary contributions to support measurements of substances controlled under the Montreal Protocol.

Minamata Convention on Mercury

Identified impact on the different dimensions of pollution

AIR DIRECT WATER INDIRECT SOIL DIRECT MARINE & INDIRECT IMPACT COASTAL COASTAL COASTAL WASTE

The Minamata Convention on Mercury is a global treaty to protect human health and the environment from the adverse effects of mercury. The Secretariat promotes several implementation mechanisms:

- Specific International Programme to support Capacity-Building and Technical Assistance delivers direct
 capacity-building and technical assistance to developing country Parties and Parties with economies in
 transition in implementing their obligations under the Convention.
- The Global Environment Facility Trust Fund (GEF) is the second component of the financial mechanism of
 the Minamata Convention on Mercury, for countries and countries with economies in transition to
 prepare Minamata Initial Assessments (MIAs) and artisanal and small-scale gold mining (AGSM) National
 Action Plans (NAPs), and to undertake projects designed to support implementation of particular articles of
 the Convention.
- Intersessional Work: For example,
 - as a crosscutting support to this intersessional process, particularly on decision MC-4/6 on mercury
 waste and MC-4/11 on effectiveness evaluation, the Secretariat issued a call for nomination of
 experts to a roster. This roster of scientific and technical experts is created with a view to
 facilitating the identification of experts to fulfil the need for different types of expertise to
 contribute to various processes established by the COP, as well as to support information exchange
 and research development under the Convention.
 - Technical group on mercury releases to develop the guidance on best available techniques and best environmental practices
 - Group of technical experts to develop a report to recommend and facilitate a COP-5 decision on the thresholds for waste.

Secretariat of the Basel, Rotterdam and Stockholm Conventions

Identified impact on the different dimensions of pollution

AIR DIRECT WATER DIRECT SOIL DIRECT MARINE & DIRECT DIRECT MARINE & DIRECT DIRE

In 2012, pursuant to decisions adopted by the respective Conference of the Parties of each convention, a joint head was appointed for the Secretariat of the Basel Convention, the Secretariat of the Stockholm conventions, as well as

the UNEP-part of the Secretariat of the Rotterdam Convention. The Secretariat's efforts towards tackling pollution are related to the objectives of these agreements as follows.

The overarching objective of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal is to protect human health and the environment against the adverse effects which may result from the generation, management, transboundary movements and disposal of hazardous and other wastes. To achieve this, the Convention is based on three pillars:

- The reduction of hazardous waste generation and the promotion of environmentally sound management of hazardous wastes, wherever the place of disposal;
- The restriction of transboundary movements of hazardous wastes except where it is perceived to be in accordance with the principles of environmentally sound management; and
- A regulatory system applying to cases where transboundary movements are permissible.

The objectives of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade are:

- To promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm;
- To contribute to the environmentally sound use of those hazardous chemicals, by facilitating information exchange about their characteristics, by providing for a national decision-making process on their import and export and by disseminating these decisions to Parties.

The objective of the Stockholm Convention on Persistent Organic Pollutants is to protect human health and the environment from chemicals that remain intact in the environment for long periods, become widely distributed geographically, accumulate in the fatty tissue of humans and wildlife, and have harmful impacts on human health or on the environment. This Convention requires from its Parties to:

- Prohibit and/or eliminate the production and use, as well as the trade, of the intentionally produced POPs listed in Annex A to the Convention;
- Restrict the production and use, as well as the trade, of the intentionally produced POPs listed in Annex B to the Convention;
- Reduce or eliminate releases from unintentionally produced POPs listed in Annex C to the Convention;
- Take measures to ensure that POPs wastes are managed and disposed of in an environmentally sound manner.

Pollution- related activities promoted by the Basel, Rotterdam and Stockholm conventions:

- Trade control measures and combating illegal traffic/trade of hazardous chemicals and wastes;
- National coordination, legal frameworks, institutional capacities for sound management of hazardous chemicals and wastes;
- Risk assessment and chemical management strategies;
- Technical assistance, including through a network of regional centres;
- International cooperation and partnerships;
- Information exchange, awareness-raising and education on chemicals and wastes management.

The BRS Secretariat also supports Parties in addressing plastic waste. The Basel Convention Plastic Waste Partnership (PWP) was established in 2019 to support the Basel Convention, with the goal to improve and promote the ESM of plastic waste and minimize its generation. The purpose of the PWP is to significantly reduce and in the long-term eliminate the discharge of plastic waste and microplastics into the environment, in particular the marine environment. As of February 2021, the PWP includes more than one hundred entities and over 200 representatives (United Nations Environment Management Group , 2022).

Secretariat of the Convention on Biological Diversity

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER INDIRECT SOIL INDIRECT MARINE & DIRECT MARINE COASTAL CHEMICALS & INDIRECT IMPACT COASTAL WASTE

The objectives of the Convention on Biological Diversity (CBD) are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources. Biodiversity is essential to human health and wellbeing. Pollution is one of the five biggest direct drivers of biodiversity loss.

The Conference of the Parties (COP) to the CBD has established seven thematic programmes of work which correspond to some of the Earth's major biomes. Each programme sets out key issues for consideration, identify potential outputs, and suggest a timetable and means for achieving these. Implementation of the work programmes depends on contributions from Parties, the Secretariat, relevant intergovernmental and other organizations. Some of them are indirectly related to pollution: Agricultural Biodiversity, Inland Waters Biodiversity, and Marine and Coastal Biodiversity. These have been supplemented with further decisions and initiatives, for example to address soil biodiversity and pollinators and to address impacts of marine debris and anthropogenic underwater noise on marine and coastal biodiversity (decisions XIII/10 and 14/10). The COP has also adopted work for implementation on many cross-cutting issues, including Economics, Trade and Incentive Measures, the Ecosystem Approach, Health and Biodiversity, and Impact Assessment.

In December 2022, the fifteenth meeting of the Conference of Parties adopted the Kunming-Montreal Global Biodiversity Framework (GBF) and associated monitoring framework. The GBF includes four goals for 2050 and 23 targets to be achieved by 2030, with Target 7 specifically addressing pollution. Target 7 of the GBF is to "Reduce pollution risks and the negative impact of pollution from all sources, by 2030, to levels that are not harmful to biodiversity and ecosystem functions and services, considering cumulative effects, including: reducing excess nutrients lost to the environment by at least half including through more efficient nutrient cycling and use; reducing the overall risk from pesticides and highly hazardous chemicals by at least half including through integrated pest management, based on science, taking into account food security and livelihoods; and also preventing, reducing, and working towards eliminating plastic pollution."

Other targets are related to the impact of pollution, including Target 4 to address species extinction through sustainable environmental management, Target 10 addressing the application of biodiversity friendly practices in areas under agriculture, aquaculture, fisheries and forestry, Target 11 aiming to restore, maintain and enhance nature's contributions to people, including ecosystem functions and services, such as regulation of air, water and climate, soil health and pollination, among others, Target 14 on the integration of biodiversity and its values into policies, regulations, planning and development processes within and across all levels of government and across all sectors, Target 15 promoting legal, administrative or policy measures to encourage and enable business to progressively reduce negative impacts on biodiversity, Target 16 promoting sustainable consumption choices, and Target 18 aiming to eliminate, phase out or reform incentives, including subsidies, harmful for biodiversity.

The Convention Secretariat facilitates the development and review of policy, processes for reporting, monitoring and assessment of implementation, global communications and, through the clearing-house mechanism of the Convention, the sharing of information and knowledge.

Secretariat of the Convention on Migratory Species

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER IMPACT SOIL INDIRECT MARINE & INDIRECT CHEMICALS & DIRECT IMPACT COASTAL IMPACT WASTE

The Convention on the Conservation of Migratory Species of Wild Animals, also known as the Bonn Convention, aims to conserve terrestrial, marine and avian migratory species throughout their range. The CMS Secretariat, under the auspices of UNEP, provides administrative support to the Convention.

The secretariat works on light and noise pollution, as well as impacts of plastics and various chemicals on wildlife (lead, pesticides, etc.)⁶.

CoP13 in 2020 passed decisions 13.122 to 13.12574 on Impacts of Plastic Pollution on Aquatic, Terrestrial and Avian Species, requesting a compilation of relevant knowledge on the impacts of marine litter on species.

The CMS Secretariat conducts research on impact of pollution on CMS-listed species in terrestrial and freshwater ecosystems, such as the Risk assessment of plastic pollution to migratory species in the Mekong and Ganga Ricer Basins report (Schuyler QA, 2021) and the Light pollution guidelines for wildlife (Government of Australia, 2020).

The Secretariat also collaborates closely with UNEP and is a member of the Global Partnership for Marine Litter (GPML).

Ramsar Convention on Wetlands Secretariat

Identified impact on the different dimensions of pollution

AIR NO IMPACT IDENTIFIED WATER INDIRECT SOIL NO MARINE & INDIRECT CHEMICALS & NO IMPACT IMPACT IDENTIFIED COASTAL WASTE

Ramsar Convention on Wetlands is a multilateral treaty established in 1971 that deals with conservation and wise use of wetlands and water resources, through national actions and international cooperation. The Convention on Wetlands Secretariat supports Parties in addressing issues related to marshes as well as all ecosystems from upstream water catchments to downstream river systems through which the litter enters the marine environment. The Ramsar Convention covers water quality in these ecosystems as well as water flows, species migration, biodiversity and on-site management. Ramsar engaged in the GPA for the Protection of the Marine Environment from Land-based Activities and is co-custodian (with UNEP) of the water-related ecosystems extent indicator SDG 6.6.1. In this role, Ramsar encourages Parties to develop inventories regarding the quality of water in ecosystems.

The Global Wetlands Outlook in its 2021 edition included several key messages around pollution, one of them being: Multiple sources of pollution, particularly from agriculture, continue to degrade wetland ecosystems.

The Convention on Wetlands has introduced a Wetland City Accreditation scheme to recognise cities taking exceptional steps to protect urban wetlands as major changes are needed in this sense to reduce water use and pollution and to stop wetland conversion (Courouble, 2021).

Secretariat of the UN Framework Convention on Climate Change

Identified impact on the different dimensions of pollution

AIR DIRECT WATER INDIRECT SOIL NO MARINE & INDIRECT CHEMICALS & DIRECT IMPACT COASTAL WASTE IMPACT WASTE

The Climate Change Convention sets an overall framework for intergovernmental efforts to tackle the challenge posed by climate change. It recognizes that the climate system is a shared resource whose stability can be affected by industrial and other emissions of carbon dioxide and other greenhouse gases. The UNFCCC mobilizes Governments to:

- Gather and share information on greenhouse gas emissions, national policies and best practices
- Launch national strategies for addressing greenhouse emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries
- Cooperate in preparing for adaptation the impacts of climate change Environmental activities

In relation to climate change mitigation and adaptation, the Secretariat's activities are focused in four programmes:

- Methods, Inventories and Science
- Sustainable Development

-

⁶ Mapping efforts survey

- Cooperative Mechanisms
- Implementation

The Secretariat of the UNFCCC received a mandate to work on oceans in 2019 through the Nairobi Work Programme (NWP).

Environment and Development

United Nations Office for Disaster Risk Reduction

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER INDIRECT SOIL INDIRECT MARINE & INDIRECT COASTAL IMPACT COASTAL IMPACT & WASTE IMPACT

UNDRR (formerly UNISDR) is United Nations focal point for disaster risk reduction, created in December 1999. UNDRR oversees the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030 and leads the organisation of the Global Platform for Disaster Risk Reduction. The formal mandate of UNDRR includes supporting countries to implement the Sendai Framework, monitoring and sharing what works in reducing existing risk, preventing the creation of new risk and ensuring synergies among the disaster reduction activities of the United Nations system and regional organisations and activities in socio-economic and humanitarian fields.

UNDRR addresses environmental impacts and pollution through a multi-hazard approach that aims to address the cascading and compounding impacts of systemic risks. In particular, UNDRR provides leadership and supports efforts in disaster risk reduction by (1) increasing risk knowledge and information, (2) strengthening risk governance, (3) leveraging partnerships and engaging stakeholders for increased action and investment, and (4) advocacy and knowledge sharing to advance risk-informed sustainable development. For instance, early warning systems help minimize the harm to people, assets, and livelihoods by triggering early action that is well prepared and tested. An integrated system of hazard monitoring, forecasting and prediction, disaster risk assessment, communication and preparedness activities systems and processes that enables individuals, communities, governments, businesses and others to take timely action to reduce disaster risks in advance of hazardous events, including pollution.

UNDRR is the custodian of the Sendai Framework Monitor, an online tool that captures Member States' progress data against a set of 38 Sendai Framework indicators towards the seven Sendai Framework global targets, including mortality, people affected and economic losses from disasters. The Sendai Framework Monitor reporting feeds directly into the monitoring of 11 SDG disaster risk-reduction indicators, specifically under SDGs 1, 11 and 13. Member States also have the possibility to track pollution as a hazard through DesInventar. The DesInventar Disaster Loss Accounting System is supported by UNDRR. DesInventar is a conceptual and methodological tool for the generation of National Disaster Inventories and the construction of databases of damage, losses and in general the effects of disasters to support national planning and investment decisions which currently do not necessarily take into account disaster risks.

Office for the Coordination of Humanitarian Affairs

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER IMPACT SOIL NO MARINE & NO IMPACT IDENTIFIED COASTAL COASTA

The Office for the Coordination of Humanitarian Affairs (OCHA) contributes to principled and effective humanitarian response through coordination, advocacy, policy, information management and humanitarian financing tools and services. OCHA's country and regional offices are responsible for delivering the core functions in the field by leveraging functional expertise throughout the organization.

The UNEP/OCHA Joint Environment Unit (JEU) responds to environmental dimensions of emergencies by coordinating international efforts and mobilizing partners to support countries that have requested assistance. In doing so, the JEU offers a wide range of services to holistically address the links between environment and emergencies.

Among other services, the JEU offers training experts to enhance readiness for deployment on UN environmental response missions, remote environmental assessment and analysis, strengthening interoperability between environmental, technical and humanitarian actors and customized tools and guidance that include for example the Disaster Waste Management guideline (Joint Environment Unit) and the Flash Environmental Assessment Tool (Joint UNEP/OCHA Environment Unit, 2016).

United Nations Educational Scientific and Cultural Organization

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER DIRECT SOIL NO MARINE & DIRECT CHEMICALS & INDIRECT IMPACT COASTAL WASTE

The United Nations Educational Scientific and Cultural Organization (UNESCO) contributes to peace and security by promoting international cooperation in education, sciences, culture, communication and information.

UNESCO's main work on tackling pollution is related to water protection. It established the World Water Assessment Programme (WWAP) (UNESCO, n.d.) in 2000 in response to a call from the UN Commission on Sustainable Development (CSD) to produce a UN system-wide periodic global overview of the status, use and management of freshwater resources.

UNESCO is also leading the implementation of the United Nations Decade of Ocean Science for Sustainable Development (2021-2030), a once-in-a-lifetime opportunity for scientists and stakeholders from diverse sectors to develop the scientific knowledge and the partnerships needed to accelerate and harness advances in ocean science to achieve a better understanding of the ocean, and deliver science-based solutions to achieve the 2030 Agenda. The Intergovernmental Oceanographic Commission of UNESCO (IOC) is the United Nations body responsible for supporting global ocean science and services.

The UNESCO Intergovernmental Hydrological Programme (IHP) is also actively working against water pollution and is currently organizing the conference Emerging pollutants: Protecting water quality for the health of people and the environment to be held in 2023.

UNESCO also aims to help mitigate to climate change and monitors the effects of climate change on UNESCO designated sites (e.g., World Heritage sites, biosphere reserves and UNESCO Global Geoparks). These sites promote low carbon economies, for instance through the sustainable use of renewable energy sources.

Additionally, the Man and the Biosphere programme (MAB) is an intergovernmental scientific programme that aims to establish a scientific basis for enhancing the relationship between people and their environments (UNESCO, n.d.).

United Nations High Commissioner for Refugees

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER NO IMPACT SOIL NO IMPACT & IDENTIFIED SOIL DENTIFIED SOIL DENTIFIED COASTAL OF CHEMICALS INDIRECT & WASTE

UNHCR, the UN Refugee Agency, is a global organization dedicated to saving lives, protecting rights and building a better future for refugees, forcibly displaced communities and stateless people. One of UNHCR's lines of work is Environment, Disasters and Climate Change. In this context, UNHCR has released its Global Strategy for Sustainable Energy for 2019 to 2025 (Division of Resilience and Solutions (DRS), 2019). The Clean Energy Challenge (UNHCR, n.d.)

is a campaign that seeks to bring businesses, governments and organizations together to provide green and safe energy to forcibly displaced populations.

Also, the UNHCR and CARE International developed the Framework for Assessing, Monitoring and Evaluating the Environment in refugee-related operations, or FRAME, in 2005. Planned and tested with partners in many countries, FRAME has produced tools and guidelines that help managers and field practitioners address environmental issues including pollution prevention and management in operational sites (UNHCR, n.d.).

Additionally, the UNHCR is working to transform its infrastructure and offices to minimize its environmental footprint while continuing to adhere to the highest standards of refugee protection and response. The Green Financing Facility will support the solarization of UNHCR infrastructure and ongoing greening projects (UNHCR, n.d.).

United Nations Entity for Gender Equality and Empowerment of Women

Identified impact on the different dimensions of pollution

AIR NO IMPACT IDENTIFIED WATER NO IMPACT IDENTIFIED SOIL NO MARINE & NO IMPACT IDENTIFIED COASTAL CHEMICALS & NO IMPACT IDENTIFIED WASTE

The United Nations Entity for Gender Equality and Empowerment of Women (UNWOMEN) is the UN organization dedicated to gender equality and the empowerment of women. A global champion for women and girls, UN Women was established to accelerate progress on meeting their needs worldwide.

While UN WOMEN does not have a specific programme for addressing pollution and gender issues, it has worked on the subject particularly though assessment papers and reports such as Human rights, the environment, and gender equality: Key messages (UN Human Rights; UNEP; UN WOMEN).

United Nations Environment Programme

Identified impact on the different dimensions of pollution

AIR DIRECT WATER DIRECT SOIL DIRECT MARINE & DIRECT CHEMICALS & DIRECT IMPACT COASTAL WASTE

UNEP was established by the General Assembly following the Stockholm Conference by resolution 2997 (XXVII) of 15 December 1972 and has the following main functions related to pollution:

- Promote international cooperation in the field of the environment and to recommend policies to this end;
- Provide general policy guidance for the direction and coordination of environmental programmes within the United Nations system;
- Keep under review the world environmental situation in order to ensure that emerging environmental problems of wide international significance receive appropriate and adequate consideration by Governments; and
- Promote the contribution of the relevant international scientific and other professional communities to the
 acquisition, assessment and exchange of environmental knowledge and information and to the technical
 aspects of the formulation and implementation of environmental programmes within the United Nations
 system.

UNEP works in response to several UNEA mandates regarding pollution in air, freshwater, land and soil, marine and coastal as well as chemicals and waste and other cross cutting issues (please see section UNEA mandates). In consequence, it coordinates and supports several key pollution-related initiatives:

• The Special Programme (SP), also known as the Chemicals and Waste Management Programme, provides support to developing countries and countries with economies in transition to enhance their sustainable institutional capacity to develop, adopt, monitor and enforce policy, legislation and regulation for effective frameworks for the implementation of the Minamata Convention, the Basel, Rotterdam and Stockholm Conventions and the Strategic Approach to International Chemicals Management (SAICM). SP focuses its programmatic intervention to: 1) eliminate pollutants that pose significant risks to the environment and health; 2) reduce the volume and toxicity of waste and wastewater

that enters the environment and stop most harmful practices such as open dumping and burning, and 3) scale up the adoption of circularity policies and practices across high impact sectors and systems, namely electronics, plastics, textile and mining. At the end of October 2022, this SP covered 9 global projects (with regional and national sub-sets within) with extra budgetary funds (non-GEF) and the GEF Chemicals and Waste portfolio with 24 full-sized projects, 8 medium-sized projects and 48 enabling activities.

- UNEP shares knowledge with diverse types of audiences, including recommendations for policy-makers, massive open online courses (MOOCs).
- UNEP serves as the secretariat of the One Planet Network (which implements the 10 Year Framework of Programmes on Sustainable Consumption and Production - 10YFP) and the Strategic Approach to International Chemicals Management (SAICM).
- The New Plastics Economy Global Commitment, led by the Ellen MacArthur Foundation in collaboration with UNEP, is an example of an initiative which focuses on the uptake of circular economy across the entire plastic value chain.
- The World Environment Situation Room is a data, information and knowledge on the Environment hosted by UNEP that includes a Pollution and Waste section.
- The Beat Pollution strategy aims to build and nurture a larger narrative on a pollution-free planet that weaves interrelated aspects of climate and nature and connects different forms of pollution to the larger issue of pollution and waste. The goal is to optimize human health and environmental outcomes through enhanced capacity and leadership in the sound management of chemicals and waste and increasing circular processes.
- InforMEA is the United Nations Information Portal on Multilateral Environmental Agreements. It is a onestop portal for information on Multilateral Environmental Agreements – or MEAs - searchable by key terms across treaty texts, COP decisions, national plans and reports, laws, court decisions and more

UNEP group its efforts in three lines of action: Nature, Climate Action and Chemicals and Pollution Action. This last one addresses pollution in all environmental media. UN Environment's work on chemicals and waste is led by the Chemicals and Health Branch.

At the third session of the United Nations Environment Assembly (UNEA3), Ministers of the Environment expressed their commitment to working towards a pollution-free planet for the health and well-being of our people and the environment (UNEA3 ministerial declaration). As a follow-up, UNEP developed an "Implementation Plan "Towards a Pollution-Free Planet" which was welcome by the Environment Assembly at its fourth session in March 2019 through resolution 4/21. UNEP is undertaking efforts towards implementation of the Plan by coordinating and monitoring its delivery with inputs from Member States and other stakeholders, and by undertaking efforts within its own programme of work.

International Maritime Organization

Identified impact on the different dimensions of pollution

AIR	NO IMPACT	WATER	DIRECT	SOIL	NO IMPACT	MARINE	&	DIRECT	CHEMICALS &	DIRECT
AIN	IDENTIFIED	WAILK	IMPACT	JUIL	IDENTIFIED	COASTAL		IMPACT	WASTE	IMPACT

The mandate of the International Maritime Organization (IMO) is to promote safe, secure, environmentally sound, efficient and sustainable shipping. This is accomplished by adopting the highest practicable standards of maritime safety and security and prevention and control of pollution from ships, as well as through consideration of the related legal matters and effective implementation of IMO's instruments with a view to their universal and uniform application.

IMO has developed and adopted a range of international instruments to address marine pollution arising from international shipping:

- International Convention for the Prevention of Pollution from Ships
- International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties
- International Convention on Oil Pollution Preparedness, Response and Co-operation
- International Convention on Civil Liability for Oil Pollution Damage

- International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage
- Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter
- International Convention on the Control of Harmful Anti-fouling Systems on Ships
- International Convention for the Control and Management of Ships' Ballast Water and Sediments

In addition, a range of mandatory and voluntary Guidelines and Codes have been developed to provide international standards for the safe transport, storage and handling of harmful substances. IMO has Secretariat responsibilities for such instruments and regulations, and regularly reviews and updates these through the Marine Environment Protection Committee which is IMO's senior technical body on marine pollution related matters. IMO's environmental activities are supported by an Integrated Technical Co-operation Programme, that specifically assists Governments which lack the technical knowledge and resources that are needed to ratify and/or implement the marine pollution related instruments.

IMO adopted an Action Plan to prevent marine plastic litter entering the oceans through ship-based activities. The International Convention for the Prevention of Pollution from Ships (MARPOL) Annex V and the London Convention and Protocol are important IMO instruments in addressing marine plastic litter.

IMO delivers training and workshops on regulation and build capacity in maritime administrations. Together with FAO, IMO has launched the GloLitter Partnerships Project, which is IMO's first global capacity building project for marine litter. Within this Partnership, IMO will be developing guidance documents, training material and toolkits to help enforce existing IMO regulations, enhance regional cooperation and expand government and port management capacities. IMO also promotes inter-agency collaboration in the context of the Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP) for which IMO serves as the secretariat. It works with UNEP and the Basel Convention, as well as with FAO on fishing-related waste; bilaterally and through GESAMP in several working groups; and with DOALOS in fulfilling the functions of UNCLOS (United Nations Environment Management Group , 2022).

United Nations Development Programme

Identified impact on the different dimensions of pollution

AIR DIRECT WATER DIRECT SOIL DIRECT MARINE & DIRECT COASTAL DIRECT OASTAL DIRECT OASTA

The United Nations Development Programme (UNDP) is the UN's development agency, advocating for change and connecting countries to knowledge, experience and resources to help people build a better life. UNDP works in 170 countries and territories to eradicate poverty and reduce inequality, aiming to build the world envisioned by the 2030 Agenda. UNDP's country teams have in-depth understanding of the local system, economic development model and culture, which are essential in facilitating, designing, advocating, and implementing initiatives. UNDP's global policy network as well as South-South and tripartite cooperation platforms provide opportunities for collaboration and partnership.

UNDP's Nature, Climate and Energy portfolio provides many entry points on enhancing waste management, including through climate mitigation and adaptation, chemicals and waste management, ocean governance, and local actions. UNDP is increasingly being requested by governments to provide support on waste management in the immediate aftermath of a disaster or conflict. UNDP SDG-finance, innovation and digital platforms can support transformative change in this area. UNDP's Accelerator Labs have explored innovative approaches in several countries to address their waste challenges.

The sound management of chemicals and waste is an important component of UNDP's efforts to achieve sustainable, inclusive, resilient human development and the Sustainable Development Goals (SDGs), while shifting to a circular economy that eliminates waste and pollution, maintains the use of products and materials for longer periods and regenerates natural systems.

UNDP's interventions in the area of chemicals and waste management directly support the implementation of the Montreal Protocol; the Basel, Minamata, Rotterdam and Stockholm conventions as well as the Strategic Approach to International Chemicals Management (SAICM). In addition, UNDP is also actively promoting its vision of a zero-waste society, one which focuses on integrated waste management in developing countries, especially municipal solid waste.

UNDP's GEF Chemicals and Waste portfolio is primarily funded by the Global Environmental Facility covering a cumulative portfolio of more than \$436 million in more than 75 countries.

UNDP supports governments, businesses, local communities and non-governmental organizations (NGOs) through the following gender-responsive interventions:

- Strengthen policy, regulatory and financial incentives to phase out chemicals of concern, design
 out pollution and waste generation, increase the circular use of materials, ensure compliance with
 waste hierarchy principles and improve residual waste management. These interventions will also
 facilitate the mainstreaming of chemicals and waste management into national development
 planning and budgeting processes.
- Support life cycle assessments and cost-benefit analyses to make a comprehensive, long-term economic case for circularity and identify chemicals and waste-related interventions to support change.
- Support the identification of "hotspot" sectors of unsustainable consumption and production and associated circular economy opportunities, which form the basis for enhanced Nationally Determined Contribution (NDC) strategies.
- Promote product innovation and redesign by building the capacity of designers, manufacturers and producers to enable them to design circular products which i) have a long lifespan (by increasing durability, reusability, repairability, refurbishment, recyclability); ii) by phasing out chemicals of concern; iii) by introducing sustainable or alternative non-plastic packaging; iv) by changing existing business models from product ownership to services (e.g. chemical leasing, product rental).
- Support process innovation and redesign by building the capacity of manufacturers and producers to introduce cleaner production principles (e.g. best available technologies, reducing resource use, improving efficiency, designing out chemicals of concern, reducing pollution and waste generation).
- Raise consumer awareness around sustainable purchasing practices by increasing consumer demand for greener, safer, healthier services and products; support green public procurement initiatives; support systems for improved product labelling and supply chain transparency and share best practices, and so on.
- Improve waste management and recycling systems by improving systems for waste segregation, recycling (including reverse logistics) and waste collection and management systems to increase re-use and recycling rates, reduce waste leaks into the environment, and minimize the release of greenhouse gases (GHG) and persistent organic pollutants (POPs). This component is not intended to minimize the importance of waste reduction and redesign, which remain priority interventions.

Please refer to UNDP's 2021 publication on Transitioning To a Circular Economy Through Chemicals and Waste Management (United Nations Development Programme, 2022) for more details on UNDP's efforts in this area.

UNDP also works to reduce pollution across sectors, working across teams. Health sector-specific initiatives include efforts to address the environmental harm caused by the manufacture, use, disposal, and logistics of medical products through their life cycle.

As of 2023, UNDP is developing its corporate offers for clean cooking, addressing both ambient and household air pollution across the organization in its future work. UNDP also supports countries in their efforts to develop multisectoral governance responses to address the health impacts of pollution, such as providing governance tools

to calculate the economic, health, social and environmental costs and return on investment for pollution reduction policies, as well as supporting legislative and regulatory changes.

Additionally, with funding from the European Commission, UNDP has developed and piloted new global tools at country level in India, Ethiopia and Mongolia: one supporting the calculation of the costs and return on investment for air pollution interventions (air pollution investment case), and another that supports legislative and regulatory changes to address pollution (legal environment assessment for health and pollution).

The COVID-19 pandemic has also greatly increased the amount of medical waste and pollution, as single-use personal protective equipment became integral to the pandemic response. Since the beginning of the pandemic, UNDP has contributed to the greening of COVID-19 vaccination, which includes reducing, recycling, and safely disposing of immunization waste, as well as deploying renewable energy solutions across the COVID-19 vaccination cold chain.

In 2020 amidst the COVID-19 crisis, UNDP and Engineers Without Borders supported numerous countries to conduct rapid assessments of health-care waste systems and related legal and policy frameworks. This was done in close collaboration with national and local government ministries, environmental management agencies, healthcare facilities, civil society organizations and the private sector. The results are being used to develop national roadmaps and support broader programming, in line with grants from the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) and sustainable health in procurement programmes.

With 91 offices, UNDP's Accelerator Labs support 100+ countries offering local integrated solutions across a range of sustainability challenges. For instance, in Uganda a preference for cooking with biomass sources leads to deforestation, the release of greenhouse gas emissions, and health-harming indoor air pollution. To address this problem, the Accelerator Lab at UNDP Uganda Country Office partnered with the Electricity Regulatory Authority to pilot the integration of electric cook-stoves at a hospital alongside a modified electricity rate structure to incentivize their use. UNDP Argentina's Accelerator Lab collected data on air pollution through participatory citizen science and low-cost sensors to build a detailed understanding of differences in air quality across different parts of Buenos Aires. A collective intelligence method can gather a more granular understanding of where localized hotpots (such as traffic junctions) exceed acceptable levels of pollution.

Economic and Social Commission for Western Asia

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER IDENTIFIED SOIL NO MARINE & NO IMPACT IDENTIFIED SOIL NO MARINE & NO IMPACT COASTAL IDENTIFIED WASTE

The Economic and Social Commission for Western Asia (ESCWA) was established in 1973 to stimulate economic activity in member countries, strengthen cooperation between them, and promote development. Among its focus areas it includes:

- Climate Change: ESCWA supports member States better predict and adapt to the impact of climate change while sustainably managing their natural resources. Initiatives in this focus area include: Arab Centre for Climate Change Policies and the Water and Energy Nexus Initiative.
- Natural resource sustainability which includes initiatives such as the Water Action Decade, REGEND
 (Regional Initiative to Promote Small–Scale Renewable Energy Applications in Rural Areas of the Arab
 Region), and Up-scaling energy-efficiency programmes and projects in the residential and services sectors.

International Organization for Migration

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER IMPACT SOIL INDIRECT COASTAL IMPACT COASTAL IMPACT WASTE

The International Organization for Migration (IOM) works to help ensure the orderly and humane management of migration to promote international cooperation on migration issues, to assist in the search for practical solutions to migration problems and to provide humanitarian assistance to migrants in need, including refugees and internally displaced people.

Since 2007, member states requested IOM to work on migration, environment and climate change. At the beginning of 2015, a dedicated Migration, Environment and Climate Change (MECC) Division was created to address the migration, environment and climate nexus. This institutional change has formalized IOM's engagement in this thematic area, making IOM the first international organization to have established an institutional unit fully devoted to this topic.

Through its Migration, Environment and Climate Change Division, within the Department of Migration Management, IOM oversees, supports and coordinates the development of policy guidance for activities with a migration, environment and climate change dimension.

IOM's objectives concerning migration, environment and climate change are:

- To prevent forced migration that results from environmental factors to the extent possible;
- To provide assistance and protection to affected populations when forced migration does occur in situations of environmental and climate change, and to seek durable solutions to their situation;
- To facilitate migration in the context of climate change adaptation and enhance the resilience of affected communities.

In 2021, IOM launched its 10-year Institutional Strategy on Migration, Environment and Climate Change 2021-2030. The Strategy formulates three Strategic Objectives:

- "We develop solutions for people to move" Managing migration in the context of climate change, environmental degradation, and disasters due to natural hazards.
- "We develop solutions for people on the move" Assisting and protecting migrants and displaced persons in the context of climate change, environmental degradation, and disasters due to natural hazards.
- "We develop solutions for people to stay" Making migration a choice by building resilience and addressing the adverse climatic and environmental drivers that compel people to move.

Office of the High Commissioner for Human Rights

Identified impact on the different dimensions of pollution

AIR DIRECT WATER DIRECT SOIL DIRECT MARINE & DIRECT CHEMICALS & DIRECT COASTAL MARINE WASTE

The Office of the High Commissioner for Human Rights (OHCHR) plays a crucial role in safeguarding the integrity of the three interconnected pillars of the United Nations – peace and security, human rights, and development. The Office collaborates with many actors on human rights and the environment, including civil society, academia, and UN entities such as UNDP, UNEP, the UNFCCC Secretariat, and interagency mechanisms such as the EMG, along with regional actors such as UNECLAC, UNESCAP and UNECE.

OHCHR aims to ensure that the protection and enjoyment of human rights is a reality in the lives of all people. In doing so, it considers the potential negative impacts of pollution on the effective enjoyment of human rights, including the rights to a healthy environment, culture, health, water, food, and life. OHCHR's work addresses the disproportionate impacts of environmental harm on persons, groups, and peoples in vulnerable situations.

OHCHR supports the implementation of international human rights standards by assisting government efforts to fulfil their human rights obligations. It also supports individuals in the exercise of their rights, monitors and reports objectively on human rights abuses and offers support, advice, and training to relevant stakeholders to make human rights a reality. OHCHR also develops guidance on the effective implementation of the human right to a clean,

healthy and sustainable environment including its recently published key messages on human rights and hazardous substances (OHCHR, UNEP).

Activities by OHCHR relating to pollution include: (i) highlighting the importance of addressing the issue from a human rights perspective (including impacts on people, food security, livelihoods, culture, and health), and (ii) engaging in processes addressing pollution, such as those concerning environmental justice and the negotiations of a new legally binding instrument to end plastic pollution.

Human rights mechanisms, including special procedure mandate holders appointed by the Human Rights Council, have also engaged on human rights and pollution. OHCHR serves as the secretariat to the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes, the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, and the Special Rapporteur on the promotion and protection of human rights in the context of climate change, amongst other human rights mandates relevant to addressing the impact of pollution worldwide.

OHCHR participated in the EMG Task Team on Marine Litter and Microplastics, including contributing materials, an interview and review of the report Addressing marine litter and microplastics – UN system-wide contributions: A Synthesis Report by the United Nations Environment Management Group. At UNEA, OHCHR gave a dedicated statement to the Assembly, recalling the recognition of the right to a clean, healthy and sustainable environment in Human Rights Council resolution 48/13 (later recognized by GA Resolution 76/300) and calling for rights-based environmental action⁷.

Economic and Social Commission for Africa

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER INDIRECT SOIL INDIRECT COASTAL OF THE WATER OF THE WASTE OF THE

The Economic and Social Commission for Africa (ECA) aims to strengthen the capacity of member States to design institutional arrangements and implement national policies and programmes that reinforce the linkages within the nexus of food security, population, environment and human settlements in order to achieve sustainable development, and to contribute to building capacity of African countries to utilize science and technology in achieving sustainable development.

Specific objectives include promoting awareness of the need to integrate concerns of the three pillars of sustainable development, namely economic development, social development and environmental protection into national development planning and poverty reduction programmes; improve stewardship of the natural resource base and the environment by strengthening the capacity of member States for sustainable exploitation, management and effective utilization of such important natural resources as mineral and energy resources, and water resources.

In response to urgent sustainable development challenges, consistent with the New Partnership for Africa framework, activities focus on the following four priorities:

- strengthening strategies and programmes for integrated water resources management;
- Improving land resources management;
- harnessing science and technology for sustainable development;
- assessing and monitoring progress on the implementation of the World Summit on Sustainable development outcomes.

ECA addresses pollution through blue and green economy projects that introduce sustainable economic models. Regional efforts include banning single-use plastics in Tanzania and Kenya, for example. It also implements projects and programmes on the green economy transition for more sustainable patterns of consumption and production,

-

⁷ Mapping efforts survey.

as well as the blue economy. For example, the Commission together with the Green Growth Institute and UNEP is conducting a study in Kenya, Zambia, South Africa, Côte d'Ivoire and Cameroon to scale up the potential of the private sector in moving towards green growth, considering the key sectors of agriculture, waste management, energy and forestry.

United Nations Economic Commission for Europe

Identified impact on the different dimensions of pollution

AIR DIRECT WATER DIRECT SOIL INDIRECT COASTAL MARINE & INDIRECT COASTAL MARINE & INDIRECT COASTAL MARINE & DIRECT COASTAL MARI

The United Nations Economic Commission for Europe (ECE) through its economic and environmental interface, its normative mandates and its key binding legal instruments and operational programmes has a unique and powerful role in addressing triple planetary crisis in the pan-European Region and beyond. The broad aim of ECE's environment activities is to safeguard the environment and human health, and to promote sustainable development in its member countries in line with Agenda 21. The practical aim is to reduce pollution so as to minimize environmental damage and avoid compromising environmental conditions for future generations also by preventing, reducing and monitoring pollution.

The ECE services 'Environment for Europe' Ministerial process (UNECE, n.d.) and to the Regional Forum on Sustainable Development (UNECE, n.d.), to two high-level platforms for stakeholders to discuss, decide and join efforts in addressing environmental priorities across the 56 countries of the UNECE region, and are regional pillars of sustainable development.

The ECE also hosts five environmental Conventions and 12 Protocols to them, some of which have become global, including Convention on Long-range Transboundary Air Pollution and its eight Protocols (UNECE, n.d.), Convention on Environmental Impact Assessment in a transboundary context and its Protocol on Strategic Environmental Assessment (UNECE, n.d.), Convention on the Protection and Use of Transboundary Watercourses and International Lakes and its Protocol on Water and Health (UNECE, n.d.), Convention on the Transboundary Effects of Industrial Accidents and its Protocol on Civil Liability and Compensation for Damage⁸, Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters and its Protocol on Pollutant Release and Transfer Registers (UNECE, n.d.).

The ECE also helps individual countries of three sub-regions (South-Eastern Europe, Eastern Europe, the Caucasus and Central Asia) and neighbouring sub-regions improve their environmental performance by assessing their efforts to reduce pollution and manage their natural resources, and by making targeted recommendations. It enables informed decision-making by supporting the enhancement of environmental monitoring and through regular environmental assessment and reporting in the region and through establishing a Shared Environment Information System.

In addition, UNECE helps enhancing synergies on environmental issues, and take a very active role in regional and several cross-sectoral processes, including in Transport, Health and Environment, Education for Sustainable Development (UNECE, n.d.), Environment and Health.

Moreover, UNECE helps enhancing synergies on environmental issues, and take a very active role in regional and several cross-sectoral processes, including in Transport, Health and Environment (UNECE, n.d.) serviced jointly with WHO, Education for Sustainable Development, Environment and Health.

The ECE also addressed food loss and waste in agricultural supply chains resulting in the development of a block-chain enhanced smart tool for tracking and tracing food lost along food supply chains, FeedUP@UN (UNECE, n.d.), which will be piloted in several countries.

 8 Protocol on Civil Liability and Compensation for Damage Caused by the Transboundary Effects of Industrial Accidents on Transboundary Waters (not in force).

Economic and Social Commission for Latin America and the Caribbean

Identified impact on the different dimensions of pollution

AIR NO IMPACT WATER NO IMPACT SOIL NO MARINE & NO IMPACT CHEMICALS & INDIRECT IMPACT COASTAL WASTE

The mission of the ECLAC in the area of environment a is to translate the vision of sustainable development in Latin America and the Caribbean in operative public policies and that consider:

- the environmental problems that exist in the countries of the region as well as the priorities expressed by the governments;
- the role and comparative advantages of ECLAC in the promotion of the sustainable development in the region of Latin America and the Caribbean;
- the role of other major actors including other agencies of the United Nations system, bilateral
 development banks and donors with a view to avoiding potential duplicities and taking advantage of
 synergies.

The work of ECLAC in the area of environment and human settlements is articulated in four areas: i) Evaluation of sustainability in Latin America and the Caribbean; ii) Public policies and pursuit of a global environmental agenda; iii) Economy and environment; and Poverty and the environment.

While no main programme directly related to pollution was identified, ECLAC has published local reports on the subject. In particular, it worked on plastics, industrial pollution and circular economy.

Economic and Social Commission for Asia and the Pacific

Identified impact on the different dimensions of pollution

AIR NO IMPACT IDENTIFIED WATER NO IMPACT IDENTIFIED SOIL NO MARINE & INDIRECT IMPACT COASTAL WASTE IMPACT WASTE

The Economic and Social Commission for Asia and the Pacific (ESCAP) supports the regional implementation of global mandates, particularly the Doha Development Agenda, the Monterrey Consensus, the Johannesburg Plan of Implementation of the World Summit on Sustainable Development, and the World Summit on the Information Society.

UNESCAP's activities in the area of environment focus primarily on coordinating and monitoring the implementation of the Regional Action Programme for Environmentally Sound and Sustainable Development, Johannesburg Plan of Implementation (JPOI), the Phnom Penh Regional Platform on Sustainable Development for Asia and the Pacific and other recommendations of the Ministerial Conference on Environment and Development in Asia and the Pacific; reviewing the regional implementation of relevant international conventions; promoting the integration of environmental considerations into economic and social planning; developing and implementing strategic environmental plans and sustainable development indicators; and promoting the increased involvement of stakeholders in achieving sustainable development goals.

The objective of UNESCAP's energy activities is to strengthen the capacity of member and associate member countries to achieve sustainable energy development. The objective is pursued through two main tiers of operation: facilitation of policy dialogues and technical assistance activities on energy for sustainable development.

It also supports regional activities on sustainable consumption and production (SCP) in collaboration with the League of Arab States. Efforts include showcasing best practices, reviewing progress and exchanging views on the needs and priorities of the region to promote a shift towards SCP, and encouraging Member States to adopt green technologies.

UNESCWA is undertaking various activities in regard to circular economy, particularly on encouraging the use of green technologies and sustainable waste management in rural areas to enhance resilience to climate change. These initiatives aim to provide policy recommendations for integrating circularity into national development and sectoral plans. The intention is to disseminate findings and regional experiences through case studies of concrete circular economy solutions and innovative green technologies relating to natural resources management. As such, in light of the need for increasing transboundary cooperation in regard to waste management, UNESCWA is currently collaborating with UNECE on a project on "Managing Food Loss and Waste".

Agriculture and Labour

Food and Agriculture Organization

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER NO IMPACT SOIL DIRECT MARINE & NO IMPACT CHEMICALS & DIRECT IMPACT COASTAL COASTAL WASTE

The Food and Agriculture Organization (FAO) is a specialized agency of the United Nations that leads international efforts to defeat hunger.

FAO's initiatives related to pollution include:

- Trade and Agribusiness Investing in sustainable value chains. This initiative aims to support countries and regions in the achievement of their SDG targets, with focus in achieving sustainable and inclusive economic growth and decent employment, through technical assistance in the development of sustainable agricultural and food value chains while facilitating appropriate investments.
- The hand in hand initiative that supports the implementation of nationally led, ambitious programmes to accelerate agrifood systems. One of the core concepts of this initiative is to ensure sustainable development. The Initiative relies on the most sophisticated technical tools to provide integrated analyses that identify key interactions, synergies, and trade-offs among actions to accelerate economic growth, ensure social inclusion, and promote sustainable use of biodiversity and natural resources (FAO, n.d.).
- FAO also has a long record of working on sea-based sources of marine litter such as ALDFG, which includes supporting the implementation of the Voluntary Guidelines for the Marking of Fishing Gear (VGMFG) through the Work Plan on Responsible fishing operations.
- The GloLitter Partnership Project, executed jointly with IMO, focuses on marine plastic litter from the fisheries sector. FAO has a permanent seat on the Steering Committee of the GPML and is an observer to the IMO's Marine Environment Protection Committee (MEPC). FAO and IMO co-host the GESAMP Working Group on Sea-based Sources of Marine Litter, which reports to the MEPC and the Committee on Fisheries.
- FAO also provides the secretariat for the Global Soil Partnership (GSP). The mandate of the GSP is to improve governance of the limited soil resources of the planet in order to guarantee agriculturally productive soils for a food secure world, as well as support other essential ecosystem services, in accordance with the sovereign right of each State over its natural resources.

In addition to its implementation and coordination work, FAO is active in developing and promoting research and training. Many of their publications are related to pollution with a particular focus in soil. It develops Food and Agriculture Statistics which include pollution related publications such as: Pesticides use, pesticides trade and pesticides indicators 1990-2019 (FAOSTAT) and Greenhouse gas emissions from agrifood systems. Global, regional and country trends, 2000–2020 (FAO, n.d.). In 2021 the GSP published The Global Assessment of Soil Pollution (FAO and UNEP, 2021).

In 2020, the organization established an inter-departmental Working Group on Agricultural Plastics and Sustainability to ensure a coordinated, comprehensive and harmonized approach in FAO's programming and operations to agricultural plastics. As part of the initiative, FAO is developing assessment of plastics used in

agricultural and food system value chains with the aim identify policy measures, innovations and best practice that can improve their circularity and reduce their potential for pollution. In 2018 FAO published Water Pollution from Agriculture: a global review (FAO and IWMI, 2018).

International Labour Organization

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER NO IMPACT SOIL NO MARINE & NO IMPACT IDENTIFIED COASTAL CHEMICALS & INDIRECT IMPACT IMPA

The International Labour Organization (ILO) is the only tripartite UN agency. Since 1919, the ILO brings together governments, employers and workers of 187 member States, to set international labour standards, develop policies and devise programmes which promote decent work for all women and men. The unique tripartite structure of the ILO gives an equal voice to workers, employers and governments to ensure that the views of social partners [that is, employers' and workers' organizations] are closely reflected in international labour standards and in shaping policies and programmes.

The ILO makes important efforts in research, including pollution related papers such as:

- The gendered effects of air pollution on labour supply (Montt, 2018), This paper draws on 20 years of systematic data collection on employment and air pollution to explore the link between air pollution and labour supply.
- ILO Instruments on Chemical Safety Analysis and synergies with other international frameworks on the sound management of chemicals (ILO, 2020). This comparative analysis of the ILO legal instruments on chemicals shows that the ILO instruments have a number of special characteristics that serve as key ILO contributions to the current global strategy for eliminating chemical risks around the world. This applies both to the Sustainable Development Goals (SDGs) and to the Strategic Approach to International Chemicals Management (SAICM)
- Jobs in a net-zero emissions future in Latin America and the Caribbean (Saget, Vogt-Schilb, & Luu, 2020).

Pollution-related conventions and recommendations:

- Convention N 174, on the Prevention of Major Industrial Accidents Convention states in its article
 4.1 that "1. In the light of national laws and regulations, conditions and practices, and in
 consultation with the most representative organizations of employers and workers and with other
 interested parties who may be affected, each Member shall formulate, implement and periodically
 review a coherent national policy concerning the protection of workers, the public and the
 environment against the risk of major accidents."
- The Chemicals Convention, 1990 (No.170), provides for a comprehensive national framework for the safe use of chemicals at work, including the formulation, implementation and periodic review of a coherent national policy.
- The Chemicals Recommendation No.177 provides guidance on the implementation of the
 provisions of Convention No.170 and proposes a number of more advanced measures which go
 beyond the obligations of the Convention. The Recommendation contains inter alia detailed
 provisions on the classification, labelling and marking of chemicals and the preparation of chemical
 SDS. It also lists additional information on the responsibilities of employers and on the rights of
 workers.
- Major Industrial Accidents Convention, 1993 (No. 174), calls for members to formulate, implement
 and periodically review a national policy on the protection of workers, the public and the
 environment from major accidents. The policy shall be implemented through preventative and
 protective measures and shall, where practicable, promote the best available technologies.

- Major Industrial Accidents Recommendation, 1993 (No. 181) provides guidance on the implementation of some of the provisions of Convention No.174 and proposes more advanced measures which go beyond the obligations in the Convention.
- Working Environment (Air Pollution, Noise and Vibration) Convention, 1977 (No. 148) applies to all branches of economic activity (Art. 1). It covers the contamination of air by all harmful or dangerous substances, including chemicals (Art. 3).
- Working Environment (Air Pollution, Noise and Vibration) Recommendation, 1977 (No. 156) provides guidance on the implementation of some of the provisions of Convention No.148 and proposes more advanced measures which go beyond the obligations contained in the Convention.
- Asbestos Convention, 1986 (No. 162)
- Benzene Convention, 1971 (No. 136)
- Safety and Health in Agriculture Convention, 2001 (No. 184), s so far only received eighteen ratifications, of which the overwhelming majority are from Europe and Central Asia (10)
- ILO codes of practice on shipbuilding and shipbreaking
- ILO Guidelines for a just transition towards environmentally sustainable economies and societies for all.

ILO deals with waste management, e-waste management and the sound management of chemicals. The organization works with UN agencies such as IMO, ITC, FAO, UNIDO, UNDP, UNEP, and intergovernmental agencies on waste management.

Additionally, ILO's green jobs programme promotes the greening of enterprises, workplace practices and the labour market as a whole. These efforts create decent employment opportunities, enhance resource efficiency and build low-carbon sustainable societies.

World Food Programme

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER NO IMPACT SOIL NO MARINE & NO IMPACT CHEMICALS & INDIRECT IMPACT COASTAL WASTE

The World Food Programme (WFP) is the world's largest humanitarian organization saving lives in emergencies and using food assistance to build a pathway to peace, stability and prosperity, for people recovering from conflict, disasters and the impact of climate change.

WFP aims to ensure that packaging used for food products maintains food safety and quality when supplied and used as part of humanitarian assistance. As such, WFP looks at the sourcing of the material for packaging food (size, fitness, prevention from contamination et cetera) with the objective to optimize and use eco-friendly packaging. The organization works directly with food manufacturers, but not with packaging suppliers. The WFP Environmental Unit works on managing solid waste as well as packaging waste that the organization produces, aiming to ensure that packaging waste is collected and managed as part of its operations.

The StopTheWasteCampaign (FAO, n.d.) aims to fight hunger by raising awareness on food waste and its impact.

The WFP also works to make their own actions pollution free, implementing measures within the design and implementation of its programmes, for example (WFP, n.d.):

- In 2020, WFP provided 1.2 million people with innovative ways to reduce the potential health impacts of air pollution caused by cooking.
- To reduce emissions, it shifted to smaller vehicles with 30 percent less fuel consumption rates, providing nearly 5,000 UN drivers with eco-driving training and working to right size (aligning the size to our operational requirement for efficiency and effectiveness) WFP's passenger fleet. In 2018 WFP adopted award winning all-terrain amphibious vehicles to transport 403 metric tons of food and supplies in

- Sudan (that would have otherwise been airdropped). This activity alone is estimated to have resulted in 276 tons of CO2 emission savings.
- WFP Engineers are present throughout our global operations and, whenever possible, propose costeffective reductions in greenhouse gas.

Business, Trade and Life-cycle

International Civil Aviation Organization

Identified impact on the different dimensions of pollution

AIR DIRECT WATER NO IMPACT IDENTIFIED SOIL NO MARINE & NO IMPACT CHEMICALS & INDIRECT IMPACT COASTAL DENTIFIED WASTE

The International Civil Aviation Organization (ICAO) is directed by 193 national governments to support their diplomacy and cooperation in air transport as signatory states to the Chicago Convention (1944). Its core function is to maintain an administrative and expert bureaucracy (the ICAO Secretariat) supporting these diplomatic interactions, and to research new air transport policy and standardization innovations.

ICAO has five strategic objectives, one being Environmental Protection (ICAO, n.d.). With the implementation of this strategic objective, ICAO serves as a multilateral platform for cooperation in minimizing the adverse environmental effects of civil aviation activities.

ICAO's leadership in all aviation-related environmental activities is consistent with UN system environmental protection policies and practices and focuses on three core areas:

- Climate change and aviation emissions
- Aircraft noise
- Local air quality

ICAO Member States are pursuing these objectives through ICAO primarily via their development of new global aviation standards. They have also agreed to aspirational goals for international aviation, and have prioritized ICAO's Environmental Protection resources on:

- Airframe, propulsion, and other aeronautical and technological innovations
- Optimizing flight procedures to reduce fuel burn
- Increasing the production and deployment of sustainable aviation fuels and clean energy
- Implementing the Carbon Offsetting Reduction Scheme for International Aviation (CORSIA).

The 41st Session of the ICAO Assembly held from 27 September to 7 October 2022 notably reached a historic agreement on a global aspirational goal for international aviation of "net-zero carbon emissions by 2050" in support of the Paris Agreement's temperature goal.

International Telecommunications Union

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER NO IMPACT IDENTIFIED SOIL NO MARINE & NO IMPACT IDENTIFIED COASTAL CHEMICALS & INDIRECT IMPACT IDENTIFIED WASTE

The International Telecommunications Union (ITU) is the United Nations specialized agency for information and communication technologies. Founded in 1865 to facilitate international connectivity in communications networks,

ITU allocates global radio spectrum and satellite orbits, develop the technical standards that ensure networks and technologies seamlessly interconnect, and strive to improve access to ICTs to underserved communities worldwide.

One of ITU's key areas of action is Environment and Climate Change. Activities within this area include:

- Helping use digital technologies for monitoring, mitigating and adapting to climate change (ITU, n.d.). ITU-T's Study Group 5 works across the ICT sector, helping it cut its CO2 emissions. Its workk helps measure the carbon footprint of ICTs, to facilitate measurement of the impact of ICTs on emissions and support meaningful reporting and comparisons. ITU-T Study Group 5 also develops standards to provide opportunities for digital technologies in mitigating as well as adapting to the effects of climate change and assisting the transition towards a circular economy.
- Protecting human health and the environment from e-waste (ITU, n.d.). It focusses on a number of priorities
 in the area of e-waste, from conducting life-cycle analysis of products and processes, helping shift current
 economic models to a green and circular economy for ICT equipment, supporting policy and regulatory
 development, producing standards, improving and collecting worldwide e-waste data and helping raise
 awareness, globally, in order to make encourage accountability.
- Facilitating digital solutions for energy efficiency by driving down emissions and reducing carbon footprint. ITU standards and Supplements are helping ICT companies, including operators of mobile networks, fixed networks, data centres, and ICT manufacturers, reduce their GHG emissions at the rate needed to meet their targets (ITU, n.d.).
- Growing its effort to greening ITU. ITU conducts a yearly greenhouse gas inventory and has been climate
 neutral in its operations since 2015. Also, through the ITU Environmental Sustainability Statement (ITU,
 2020) in 2020, ITU adopted a series of guiding principles to step-up and act on internal sustainability
 ambitions.

Universal Postal Union

Identified impact on the different dimensions of pollution

AIR	INDIRECT IMPACT	WATER	NO IMPACT IDENTIFIED	SOIL	NO IMPACT IDENTIFIED	MARINE & COASTAL	NO IMPACT IDENTIFIED	CHEMICALS & WASTE	INDIRECT IMPACT
						COASIAL		VVAJIL	

Universal Postal Union (UPU) is the primary forum for cooperation between postal sector players and helps to ensure a truly universal network of up-to-date products and services. With more than 1 million vehicles and some 800,000 buildings combined, the postal operators of UPU member countries have a significant environmental impact and many postal operators have come far in implementing sustainable practices; including several aiming to tackle pollution (UPU, n.d.).

- OSCAR the Online Solution for Carbon Analysis and Reporting is a tool provided by the UPU to measure and analyse the postal sector's carbon footprint.
- Postal organizations around the world are transitioning their fleets to alternative vehicles and generating their own renewable energy
- In addition, the UPU conducts a range of activities that seek to build capacity and share best practices on climate change mitigation and natural resource management and works together with other organizations to shape the global sustainability agenda.
- The UPU provides Posts with tools to encourage more responsible consumption and production, in line with Sustainable Development Goal 12, supporting them to offer customers more sustainable delivery options, and to rethink how goods that enter the supply chain are packaged, reused and recycled.

World Intellectual Property Organization

Identified impact on the different dimensions of pollution

ΛID	INDIRECT	\A/ATED	INDIRECT	NO IMPACT	MARINE &	INDIRECT	CHEMICALS &	INDIRECT
AIR	IMPACT	WATER	IMPACT	IDENTIFIED	COASTAL	IMPACT	WASTE	IMPACT

World Intellectual Property Organization (WIPO) is the global forum for intellectual property (IP) services, policy, information and cooperation. Its mission is to lead the development of a balanced and effective international IP system that enables innovation and creativity for the benefit of all.

WIPO GREEN is WIPO's online platform for technology exchange. It supports global efforts to address climate change by connecting providers and seekers of environmentally friendly technologies. Through its database, network and acceleration projects, it brings together key players to catalyse green technology innovation and diffusion (WIPO, n.d.).

United Nations Human Settlements Programme

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER INDIRECT SOIL NO MARINE & NO IMPACT CHEMICALS & INDIRECT IMPACT COASTAL IDENTIFIED WASTE IMPACT

United Nations Human Settlements Programme (UN-HABITAT) is mandated by the UN General Assembly to promote socially and environmentally sustainable towns and cities. UN-Habitat collaborates with partners to build inclusive, safe, resilient and sustainable cities and communities. UN-Habitat promotes urbanization as a positive transformative force for people and communities, reducing inequality, discrimination and poverty.

UN Habitat coordinates five flagship programmes, including the Sustainable Development Goals Cities that is currently developing baseline information. Through an inclusive strategic planning process, the analysis of gaps will inform interventions needed to reach targets. These can be categorised into four baskets.

- Basket 1: Enablers; e.g., plans, governance set-up, regulations, municipal financing instruments, land management systems.
- Basket 2: Capacity gaps to be addressed; e.g., revenue collection and public financial management, solid waste management, land management, urban planning.
- Basket 3: Public Infrastructure; e.g., basic services water, electricity, lighting, solid waste management, public transportation, public space, affordable housing, education and health facilities.
- Basket 4: Economic initiatives; e.g., tourism investments, business districts, industrial parks.

UN Habitat focuses greatly on slum upgrading, solid waste management and urban energy efficiency. It launched "Waste Wise Cities", to address the increasing global waste management crisis. More than two hundred cities joined the campaign. It also works with UNEP to establish monitoring methodologies for waste-related SDG targets and is the custodian agency for SDG indicator 11.6.1, which measures the proportion of municipal solid waste collected and managed in controlled facilities in cities. UN-Habitat collaborates with various partners in the waste sector and on marine litter including UNEP, UNESCAP and the Climate & Clean Air Coalition (CCAC) waste initiative.

UN Habitat also develops guidelines that promote reducing emissions from urban construction and planning. Examples are Build Green. 100 Ways to Save Money (UN Habitat, 2016) and Sustainable Urban Energy Planning (UN Habitat and ICLEI, 2009).

In 2021 UN Habitat presented the New Urban Agenda that provides UN-Habitat with a toolbox to support countries in making progress towards the attainment and localization of the 2030 Agenda for Sustainable Development. The agenda has four drivers, the third being "Decoupling urbanization from environmental pollution and strengthening resilience and adaptive capacity of communities".

United Nations Industrial Development Organization

AIR DIRECT WATER DIRECT SOIL DIRECT MARINE & DIRECT CHEMICALS & DIRECT COASTAL DIRECT COASTAL DIRECT MARINE WASTE

The United Nations Industrial Development Organization (UNIDO) has a direct mandate to promote and accelerate Inclusive and Sustainable Industrial Development, primarily through supporting SDG 9 on industry, innovation and infrastructure. In addition, the Organization contributes to progress on various SDGs, including responsible consumption and production (SDG 12) and climate action (SDG 13) among others. UNIDO works with governments

and industries to reduce hunger, stop climate breakdown, and support sustainable supply chains. From capacity building to technology transfer, the Organization helps countries to adopt innovative solutions for tackling pollution across the world. (UNIDO, n.d.):

- Circular economy: UNIDO actively promotes circular economy approaches in a wide range of projects and programmes as part of a viable solution to some of the most pressing global challenges, including the climate crisis, biodiversity loss, ocean pollution, and resource and ecosystem degradation. From extending product lifetimes, to ensuring the safe recycling of goods through the substitution of toxic chemicals, there are many examples of circular economy practices in UNIDO's work on Chemicals and Waste. At the request of the General Conference, in its resolution GC.18/Res.7, UNIDO brought together experts from a wide range of Member States to exchange best practices and emerging innovations in the first round of global consultations on circular economy held virtually from 10 to 12 May 2021. These consultations seek to support the promotion and adoption of circular economy principles and practices by industries of Member States.
- Clean energy access for industrial use: UNIDO supports sustainable low-carbon development by promoting
 the Renewable Energies Strategy, the Industrial Deep De-carbonization Initiative and the Global Programme
 for Green Hydrogen Industry. The Organization pursues a multi-dimensional approach to promote
 productive uses of renewable energy in developing countries, including technology demonstration, policy
 support, and capacity building.
- Implementation of multilateral environmental agreements: UNIDO supports countries in meeting their
 obligations under the major pollution-related multilateral environmental agreements (MEAs), such as the
 Montreal Protocol, the Stockholm Convention on Persistent Organic Pollutants (POPs), the Minamata
 Convention on Mercury, and the United Nations Framework Convention on Climate Change (UNFCCC).
 Interventions include addressing e-waste management in the Philippines and across Latin America and
 Caribbean, tackling POPs in the textiles supply chain in Africa, and reducing mercury use in the artisanal and
 small-scale gold mining sector in Mongolia.
- Resource-efficient and low-carbon industrial production: UNIDO enables countries to reduce their level of
 consumption of natural resources, greenhouse gas and other emissions and industrial wastes in industrial
 processes. UNIDO addresses various aspects of pollution:
- Marine plastic litter. UNIDO addresses issues related to the reduction of land-based sources of plastic litter.
 This work includes publishing guidelines and other technical documents, including "Addressing the
 challenge of Marine Plastic Litter using Circular Economy methods", partnering for Africa's plastic pollution
 challenge, studies on plastic value chains in Egypt, Nigeria, and Kenya, and a report on sustainable
 alternative materials, innovative packaging and recycling technology. There are also projects to promote
 circular economy practices in industry to reduce plastics leaking to the environment.
- Resource Efficient and Cleaner Production (RECP). This UNEP-UNIDO initiative addresses the three
 sustainability dimensions individually and synergistically: a) heightened economic performance through
 improved productive use of resources, b) environmental protection by conserving resources and minimizing
 industry's impact on the natural environment, and c) social enhancement by providing jobs and protecting
 the wellbeing of workers and local communities.
- Transfer of Environmentally Sound Technologies (TEST) is an integrated approach that provides industries and small and medium enterprises (SMEs) with a combined set of tools to initiate a cycle of continuous improvements within their business operations to manage the transition towards a sustainable production.
- Health and Pollution Action Plans (HPAP) developed with assistance from UNIDO in Colombia, Ghana, the
 Kyrgyz Republic, the Philippines and Tanzania brought high-level representatives and experts from
 Ministries of Environment, Health, Industry, Labour, Economy and Planning, and Environmental Protection
 Agencies together with UNIDO, WHO, UNICEF, World Bank Group, Asian Development Bank, National
 Cleaner Production Centres, private sector and NGOs.
- UNIDO's Global Chemical Leasing Programme promotes a performance-based business model that marks a paradigm shift from increasing the sales volume of chemicals towards a value-added approach.

The World Trade Organization (WTO) ensures that trade flows as smoothly, predictably and freely as possible, helping countries to achieve sustainable development. The Marrakesh Agreement establishing the WTO, envisages a global trading system that protects and preserves the environment in accordance with sustainable development.

In 2020 fifty WTO members announced o their intention to intensify work on trade and environmental sustainability at the WTO by organizing the Trade and Environmental Sustainability Structured Discussions (TESSD) (Ministerial Statement, 2021). During the TESSD meetings held so far, participants have discussed topics such as sustainable supply chains, environmental goods and services, circular economy, green aid for trade, fossil fuel subsidy reform, and sustainable food and agriculture (WTO, n.d.).

There is a growing interest by WTO members to discuss the trade-related aspects of environmental sustainability and related issues such as how trade policy can help address plastic pollution and establish a global circular economy. A group of WTO members launched in November 2020 an initiative to explore how the WTO could contribute to efforts to reduce plastics pollution and promote the transition to more environmentally sustainable trade in plastics. The Informal Dialogue on Plastics Pollution and Environmentally Sustainable Plastics Trade is open to all WTO members and seeks to complement discussions in the Committee on Trade and Environment (CTE) and other fora.

The WTO's report Mainstreaming trade to attain the Sustainable Development Goals (WTO, 2018) included a chapter on Measuring progress towards achieving the trade-related SDG targets in the environmental sphere but the focus was on fisheries and life under water rather than pollution.

United Nations Conference on Trade and Development

Identified impact on the different dimensions of pollution

AIR NO IMPACT IDENTIFIED WATER INDIRECT SOIL NO MARINE & INDIRECT CHEMICALS & INDIRECT IMPACT COASTAL WASTE

The United Nations Conference on Trade and Development (UNCTAD) supports developing countries to access the benefits of a globalized economy more fairly and effectively by providing analysis, consensus-building, and technical assistance. UNCTAD technical cooperation activities are a significant element in achieving the objectives outlined in the Nairobi Maafikiano adopted by UNCTAD 14, held in Nairobi (Kenya) in July 2016. The Nairobi Maafikiano establishes that the important role of UNCTAD will be strengthened as the focal point in the United Nations for the integrated treatment of trade and development and interrelated issues in the areas of finance, technology, investment and sustainable development (TD/519/Add.2).

UNCTAD obtained a mandate on oceans and seas at the UNCTAD 14 Conference: "In cooperation with other relevant international organizations and other stakeholders, support developing countries, in particular small island developing States, in the advancement of Sustainable Development Goal 14 in the design and implementation of regional and/or national economic development strategies for the conservation and sustainable use of oceans and their resources, seeking to promote sustainable trade in ocean-based sectors (...)" (UN, 2016). In 2021, the Bridgetown Covenant further stressed the importance of ensuring "conservation and sustainable use of oceans, seas and marine resources, including addressing the discharge of plastic litter and other waste in oceans and significantly reducing marine pollution of all kinds" (TD/541/Add.2).

UNCTAD works on the circular economy by encouraging discussions and activities seeking to bring value out of waste streams, by encouraging discussions around collaborative economy sectors, by the examination of innovate business models and encouragement of consumer awareness and behavioural shifts. In partnership with other international organizations, UNCTAD's work on the circular economy at the national and multilateral level brings this important theme to the service of the international community. There is a special focus on plastics and marine litter, especially through the angle of material substitutes which can perform similar roles of plastic in global value chains, while at the same time reducing environmental footprints, fostering innovation and creating jobs where they are most

needed. Additionally, in cooperation with UNECA, UNCTAD is assisting countries in Africa to identify and support green products and their related value chains in order to stimulate growth, development and pollution reduction.

UNCTAD's two main marine litter-related activities are the Sustainable Manufacturing and Environmental Pollution (SMEP) programme (Sustainable Manufacturing and Environmental Pollution Programme, 2019) and the Ocean Forum (Ocean's Forum, 2022). SMEP includes components on improving sustainable production, including project support and analysis on life-cycle impacts of exports. UNCTAD SMEP and Oceans programmes also develop research, data & dashboard tools, in-country project support and dialogues on trade instruments to prevent plastic litter and manufacturing-related pollution. UNCTAD also engages in consensus building by communicating the interests of developing countries in international fora. Within the workstream on improving sustainable production, UNCTAD commissioned three recent studies, focusing on the mapping of manufacturing pollution in Africa and Asia, looking at the connections between production and exports from pollution life-cycle perspective. It has also prepared a specific study looking at promising material substitutes which can replace single-use plastics and that can at the same time assist in addressing marine plastic pollution, as well as a variety of national case-studies in Africa and South Asia and (SMEP, 2020) (UNCTAD, 2021) (UNCTAD, 2021).

The issue of marine litter has also been raised at the 4th United Nations Ocean Forum, where specific oceans economy and trade related recommendations for the multilateral trade system and the 2022 Oceans Conference were made to address this challenge (Ocean's Forum, 2022). An Inter-Agency Plan of Action on food production between UNCTAD, FAO and UNEP include a plastics and circular economy component. UNCTAD partners with agencies involved in the Ocean Forum including FAO, UNECE and UNEP, and with DOALOS on developing Oceans Economy and Trade Strategies. The ambition is to raise the issue of marine litter and plastics at the national level to sensitize trade negotiators to UNCTAD's findings on plastics. More recently UNCTAD and WTO organised a special Workshop on sustainable and effective substitutes and alternatives for plastics to scope, stocktake, and to enable a trade facilitation exercise of potential plastics substitutes and alternatives, providing a strong technical base for intensified discussions on sustainable, tradable, and effective substitutes and alternatives for plastics. The results seek to support the UNEA process on plastic pollution and the WTO's Informal Plastic Dialogue (UNCTAD, 2022).

International Trade Centre

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER IMPACT SOIL NO MARINE & INDIRECT IMPACT COASTAL CHEMICALS & INDIRECT IMPACT WASTE

The International Trade Centre (ITC) works with Small- and Medium-sized Enterprises (SMEs) on the international value chain and sustainability, addressing trade-related issues such as climate change, environment, e-commerce and gender. The International Trade Centre (ITC) helps countries adopt and strengthen their trade and investment legal and regulatory frameworks to best integrate green growth and harness trade as a way towards a sustainable and inclusive economy.

ITC provides small businesses with capacity building on resource use and circular production practices and links them to those in business ecosystems to innovate, access technologies, services and markets. Circularity offers an opportunity to transform economies so as to reduce waste, circulate resources and regenerate nature. A circular economy can help reduce pollution, emissions and waste as well as increase jobs and prosperity. In this line of work the ITC published the report Empowering Green Recovery in 2021 (ITC, n.d.) and The State of Sustainable Markets (ITC, n.d.). It is also leading the Green2Compete strategy aiming to place environmental sustainability at the heart of MSME competitiveness. Its goal is to enable MSMEs from developing countries to become more competitive through green production and trade.

The ITC Sustainability Gateway aims to ensure that MSMEs benefit from trade by working with all stakeholders to embed sustainability and inclusiveness in value chains. The Trade for Sustainable Development programme (T4SD) is ITC's main sustainability-related trade initiative associated to marine litter and microplastics, mainly aimed at enterprises including farmers and institutions. Most of the ITC's work focuses on the agricultural and textile sectors. ITC works with several cooperatives that are in contact with thousands of producers upstream in different sectors

in the Caribbean, West Africa and Asia. ITC has collaborated with ILO and UNEP on a project proposal on waste management. The agency works on capacity building with WTO and is part of the UN E-waste Coalition where it collaborates with inter alia the BRS.

ITC addresses marine litter and microplastics through projects with developed methodologies on waste management, implementing resource efficiency strategies, and strengthening climate resilience of SMEs in different sectors of relevance to plastics. ITC has developed methodologies for resource efficiency that concern chemical and other types of waste at the source.

World Tourism Organization

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER INDIRECT SOIL NO MARINE & INDIRECT IMPACT COASTAL CHEMICALS & INDIRECT IMPACT COASTAL WASTE

The World Tourism Organization (UNWTO) is the United Nations agency responsible for the promotion of responsible, sustainable and universally accessible tourism. Among its priorities it includes supporting sustainable tourism policies and practices: policies which make optimal use of environmental resources, respect the sociocultural authenticity of host communities and provide socio-economic benefits for all. Examples of pollution-related activities are:

- Global Tourism Plastics Initiative. The Initiative, launched in January 2020, is led by UNWTO and UNEP in collaboration with the Ellen MacArthur Foundation. It provides a global framework for action structured around a common vision and commitments to address the root causes of plastic pollution and drive the tourism sector towards a circular economy of plastics. The initiative supports tourism stakeholders globally to eliminate problematic and unnecessary plastics, integrate reuse models and collaborate across the value chain (with suppliers and waste managers) to increase recycling content and recycling rates. The initiative is aligned with the New Plastics Economy Global Commitment and supports building readiness of tourism stakeholders vis à vis the upcoming International Treaty on plastic Pollution. As of December 2022, over 100 businesses, associations and destinations (governments) have become signatories (UNWTO, n.d.).
- Glasgow Declaration on Climate Action in Tourism: The Glasgow Declaration was launched at UNFCCC COP26 in November 2021. In support of the global goal to reach net zero emissions by 2050, it defines a consistent sector-wide approach to accelerate climate action in tourism and enhance the contribution of tourism to the implementation of the Paris Agreement. The Glasgow Declaration focuses on climate change mitigation, but it also recognizes the need to adapt to changing climatic conditions and the opportunities that integrated mitigation-adaptation approaches can deliver. The initiative is mobilizing commitments to develop climate action plans aligned with five pathways: measure, decarbonize, regenerate, collaborate and finance. As of December 20222, over 700 tourism destinations (governments, including 11 national level signatories), business and associations have become signatories.
- Global Roadmap on Food Waste Reduction in Tourism: The Roadmap aims to enhance the contribution of the tourism sector to a more sustainable food system, as well as to address food management as an entry point for circular approaches in the tourism sector which can enhance linkages with local communities, create added value for guests and curb CO2 emissions and pollution from food waste. The Roadmap provides a consistent framework for tourism stakeholders to embrace the sustainable management of food (including procurement, preparation of menus, consumption and disposal),with a special emphasis on addressing food waste through prevention, redistribution and diversion from landfill.
- These three work streams are implemented under the umbrella of the One Planet Sustainable Tourism Programme where UNWTO collaborates closely with UNEP to accelerate sustainable consumption and production in tourism as a strategy to address the challenges of climate change, biodiversity loss and pollution. The One Planet Sustainable Tourism Programme is one out of the six programmes in the One Planet network and supports the implementation of the Global Strategy on Sustainable Consumption and Production 2023-2030 which identified tourism as a high impact sector.
- Hotel Energy Solutions (HES) is a UNWTO-initiated project in collaboration with a team of United Nations and EU leading agencies in Tourism and Energy. The project delivers information, technical support &

- training to help Small and Medium Enterprises (SMEs) in the tourism and accommodation sector to increase their energy efficiency and renewable energy usage and therefore reduce CO2 emissions (UNWTO, n.d.).
- UNWTO INTERNATIONAL NETWORK OF SUSTAINABLE TOURISM OBSERVATORIES (INSTO) is a network of
 tourism observatories monitoring the economic, environmental and social impact of tourism at the
 destination level. To this day 33 observatories have joined. All members must monitor 9 mandatory issues
 which include solid waste management, water management and. sewage management.

United Nations Office for Project Services

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER IMPACT SOIL NO MARINE & DIRECT SOIL IMPACT CHEMICALS & INDIRECT IMPACT WASTE

The United Nations Office for Project Services (UNOPS) works to help people build better lives and countries achieve peace and sustainable development. UNOPS has a Health, Safety, Social and Environmental (HSSE) Policy in place, and all programmes, projects and facilities globally are obliged to comply with this policy.

In addition to environmental policies and guidance set at headquarters, some country offices have developed standard operating procedures at the country level to expand and enhance sustainable practices. Measures including prevention of waste generation, the use of alternatives to plastics and inclusive green jobs generation. These are mainstreamed in all activities of UNOPS, along with guidance on minimum waste management requirements in line with international standards and best practices in all projects.

UNOPS also promotes green jobs generation through a shift in recycling activities and collaborates with UN entities on environmental sustainability management. UNOPS addresses the topic of plastic pollution in their in-house management and their programmes and projects by applying best practices and innovative solutions of integrated solid waste management. The in-house environmental management system encourages the minimization of single-used plastics, while waste management is applied in projects implemented/administered by UNOPS. The entity contributes to the reduction of plastic and other waste generation through its corporate principle to have a limited environmental footprint.

Health and Sanitation

World Health Organization

Identified impact on the different dimensions of pollution

AIR DIRECT WATER DIRECT SOIL NO MARINE & INDIRECT CHEMICALS & INDIRECT COASTAL IMPACT WASTE

Dedicated to the well-being of all people and guided by science, the World Health Organization (WHO) leads and champions global efforts to give everyone, everywhere an equal chance to live a healthy life. In decision EB142(5) (2018), the Executive Board at its 142nd session requested the Director-General inter alia to develop a draft comprehensive global strategy on health, environment and climate change (A72/15). In consequence, WHO's activities to advance the global agenda for building healthier environments for healthier populations include:

- providing leadership on guiding important transitions such as in energy and transport, and stimulating good governance in health and environment;
- ensuring knowledge generation and dissemination for evidence-based norms and efficient solutions, steering research and monitoring change in risks to health and implementation of solutions; and
- building capacity for emergency preparedness and response in case of environment-related incidents and provide related guidance on environmental health services and occupational health and safety.

The Urban Health Initiatives is an implementation framework which aims to reduce the deaths and diseases caused by unhealthy urban environments. Moved by the Drinking-Water, Sanitation and Health from the SIXTY-FOURTH WORLD HEALTH ASSEMBLY (WHA64.24), WHO develops, updates and disseminates health-based guidance

documents and best practice guides, norms and standards that support standard-setting and regulations at national level, particularly for drinking-water safety, effective surveillance approaches, recreational water quality, sanitation safety, safe wastewater use, WASH in health and educational facilities, and WASH monitoring.

WHO promotes interventions and initiatives for healthy sectoral policies (including energy, transport, housing, urban development and electrification of health-care facilities), addressing key risks to health from air pollution indoors and outdoors, and contributing to achieving health co-benefits from climate change mitigation policy. Three working groups were established in this direction: Global air pollution and health - technical advisory group, Scientific advisory group on air pollution and health, SDG 11.6.2 working group.

WHO works closely with countries and partners to monitor and report on their emergency preparedness capacities for all hazards, including for chemical incidents. Surveillance of diseases of possible chemical ethology is a daily element in WHO's outbreak alert and response activities. It has also focused on environmental exposure to microplastics, with the publication of a report on microplastics in drinking water. The report provides an overview on the occurrence of microplastics in freshwater environments as well as in drinking water, the potential human health aspects of microplastics in terms of particle toxicity, chemical toxicity and biofilms, and assessed the potential risks considering exposure and toxicity.

United Nations Children's Fund

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER DIRECT SOIL NO MARINE & NO IMPACT COASTAL DENTIFIED COASTAL COASTAL WASTE IMPACT

The United Nations Children's Fund (UNICEF) works in the world's toughest places to reach the most disadvantaged children and adolescents – and to protect the rights of every child, everywhere. It has 17 focus areas, two of which are pollution-related: Climate change and environment and Water; and Sanitation and Hygiene - both linked to health in early childhood and adolescence.

Children are cognitively, physiologically, and physically more vulnerable to climate impacts and environmental pollutants. In addition, a child's detoxification mechanism is developing and impact of exposure to pollutants may be lifelong and irreversible. Reducing emissions and pollution is the only long-term solution — and will come too late for the most vulnerable children. UNICEF has a "Healthy Environments for Healthy Children" (HEHC) global framework that identifies environmental hazards and pollutants that impact on children's health such as toxic metals, toxic chemicals, hazardous waste, air pollution and other environmental risks. Country programming is being implemented on HEHC with the following strategies: awareness and advocacy for regulations and legislations, capacity building of the health sector, setting up of monitoring and surveillance systems underpinned by a strengthened primary health care system ⁹.

As part of its Climate, Energy, Environment and Disaster Reduction framework, UNICEF developed the strategy A Liveable Planet for Every Child (2022-2030) (UNICEF). UNICEF's Strategic Plan 2022-2025 focuses on reducing pollution and climate change impact on each of UNICEF'S result areas:

- WASH: shift global water, sanitation and hygene programming to be climate resilient by ensuring all our interventions are based upon a climate rationale for the impact of climate change and water insecurity on WASH services.
- Health: the health impact of climate and environmental degradation on children by addressing related risks in primary health care and strengthening climate-resilient and environmentally sustainable healthcare facilities.
- Social Policy: ensure that social safety nets for children are responsive to climate and environmental shocks and stresses, i.e., sudden and slow-onset disasters.

-

⁹ Mapping efforts survey.

Cross-sectoral Programming: advance solutions such as the scale up of sustainable energy across UNICEF'S
own operations and supply chain and in the humanitarian response and development programmes in
water, sanitation, health, education, nutrition, child protection, and social protection. This is to mitigate
climate change and environmental pollution and also to recognize the key role that energy plays in child
development outcomes.

Four countries have specific projects on ending childhood lead poisoning: Bangladesh, Ghana, Georgia, Indonesia. These countries will also be expanding work to include aside from lead, other environmental pollutants that impact on children's health. An additional 10 countries will also be implementing HEHC projects or a total of 14 countries starting in 2023-2026: Azerbaijan, Bangladesh, Belize, Bhutan, Cambodia, Ecuador, Georgia, Ghana, India, Indonesia, Kazakhstan, Kyrgyzstan, Mongolia, and Viet Nam¹⁰.

UNICEF is also strongly committed to reducing its environmental impact including pollution in-line with the Procedure on Eco-Efficiency & Inclusive Access in UNICEF Premises and Operations¹¹. It is part of the Greening the Blue Initiative and is currently working to accelerate the implementation of environmental and social standards across the organization. UNICEF has been carbon-neutral since 2015 by offsetting unavoidable emissions, and are driving up ambition in reducing emissions, water-use, and waste generation.

Despite progress, in 2020 almost half of the world's population, 3.6 billion people, used sanitation services that leave human waste untreated, threatening human and environmental health. An estimated 494 million people practised open defecation, with rural dwellers, indigenous people and poor people much more likely to be without any sanitation services at all (World Health Organization and the United Nation Children's Fund, 2021) (Agudo, 2022).

UNICEF's Game Plan to Reach Safely Managed Sanitation (UNI Game Plan to Reach Safely Managed Sanitation 2022–2030 | UNICEF) is based on a systems strengthening approach, supporting countries to strengthen the policy environment for sanitation, including strengthening of institutional accountabilities, financing strategies and capacity to drive and sustain sanitation progress. The Game Plan aims to reach 1 billion people by 2030 by supporting national programmes.

Aside from WASH communities, UNICEF also works on WASH in Institutions. UNICEF works with WHO on accelerating investments in WASH in Health Care Facilities (HCF), of which sanitation and health care waste management are vital to achieving the most basic services in HCF, all of which is fundamental to achievement of the Astana Deceleration. In schools, UNICEF is also supporting over 60 countries with WASH in Schools programs that promote meeting basic sanitation and menstrual hygiene services in schools.

United Nations Office on Drugs and Crime

Identified impact on the different dimensions of pollution

MARINE **CHEMICALS &** NO IMPACT INDIRECT INDIRECT INDIRECT IMPACT AIR WATER SOIL IDENTIFIED IMPACT IMPACT IMPACT IDENTIFIED **COASTAL** WASTE

The United Nations Office on Drugs and Crime (UNODC) helps make the world safer from drugs, organized crime, corruption and terrorism, committed to achieving health, security and justice for all by tackling these threats and promoting peace and sustainable well-being as deterrents to them.

¹⁰ Mapping efforts survey.

¹¹ Mapping efforts survey.

UNODC assists Member States in better addressing a coordinated, comprehensive response to the interrelated issues of illicit trafficking and abuse of drugs, crime prevention and criminal justice. UNODC is undertaking work of relevance to tackling pollution within its workstreams including:

- The Programme by the UNODC's Laboratory and Scientific Section (LSS) on the safe handling and disposal
 of chemicals, including chemical waste that is generated from drug production and is being burned or
 dumped directly in the environment;
- The Global Maritime Crime Programme (GMCP) that addresses transnational organized crime that occurs
 at sea and that supports Member States in tackling maritime environmental crime including pollution, oil
 spill and fisheries crime; and
- The UNODC-World Customs Organization (WCO) Container Control Programme (CCP) that collaborates with Member States to enhance their capacity to detect illicit goods in cargo containers at sea, land and airports, including plastic and hazardous waste; iv) the Office's Alternative Development projects support and strengthen the participation of local communities in improving water and sanitation management.
- The Unwaste project, under UNODC's Regional Programme for Southeast Asia and the Pacific and in cooperation with UNEP, that tackles trafficking in waste between the European Union and Southeast Asia by
 promoting enhanced EU-ASEAN Member States partnerships, by encouraging intra and inter-regional
 dialogues and by analysing waste flows between the regions, in support of ongoing efforts towards a
 circular economy transition.
- UNODC has developed a Legislative Guide on Waste Trafficking to support States in enacting or strengthening domestic legislation to prevent and combat waste trafficking. The Guide is a tool for Member States to amend or adopt legislation to better address the challenges posed by waste trafficking. It includes model provisions and guidance, which States can adapt to fit local conditions, constitutional principles, legal culture and structures, as well as existing enforcement arrangements. This practical tool enables countries to draw from existing international agreements and instruments whilst considering national circumstances and policies as well as the composition and structure of national sectors

Research and Training

United Nations Institute for Training and Research

Identified impact on the different dimensions of pollution

AIR DIRECT WATER DIRECT SOIL DIRECT MARINE & DIRECT CHEMICALS & DIRECT IMPACT COASTAL WASTE

The United Nations Institute for Training and Research (UNITAR) provides innovative learning solutions to individuals, organizations and institutions to enhance global decision-making and support country-level action for shaping a better future.

UNITAR works building human capacities for green economy, climate change, chemicals and waste management and sustainable consumption and production through on-the-ground interventions, as well as distance learning and support. In particular, it works in the following pollution related matters (UNITAR, n.d.):

- Artisanal and small-scale gold mining
- International chemicals and waste policy development
- Reducing Emissions from Deforestation and Forest Degradation
- POPs Global Monitoring
- Sustainable consumption and production

United Nations University

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER INDIRECT SOIL INDIRECT IMPACT COASTAL CHEMICALS & INDIRECT IMPACT COASTAL WASTE

The United Nations University (UNU)) is a global think tank and postgraduate teaching organization with the mission to contribute, through collaborative research and education, to efforts to resolve the pressing global problems of human survival, development, and welfare that are the concern of the United Nations, its Peoples, and Member States.

UNU fosters projects towards achieving SDGs related to pollution such as Responsible Production and Consumption, Clean Water and Sanitation, Climate Action and Affordable and Clean Energy (UNU, n.d.).

International Atomic Energy Agency

Identified impact on the different dimensions of pollution

AID	DIRECT	WATER	INDIRECT	COII	INDIRECT	MARINE	&	DIRECT	CHEMICALS &	DIRECT
AIR	IMPACT	WAIEK	IMPACT	SOIL	IMPACT	COASTAL		IMPACT	WASTE	IMPACT

Many human activities release pollutants into the environment, where they become part of biological, geological and chemical cycles. The International Atomic Energy Agency (IAEA) uses nuclear science-based tools to study these processes and helps Member States to develop capacity to do such studies themselves and to deal with pollutants, radioactive waste and contaminated sites (IAEA, n.d.):

- The IAEA uses nuclear and isotopic tools to understand the world we live in and provide decision-makers with the information necessary to address modern environmental issues and adapt to future scenarios. The Agency also assists Member States in treating nuclear waste and remediating contaminated sites. The Agency elaborates guidelines and technical documents on these issues, such as Assessment of Radioactive Contamination and Effectiveness of Remedial Measures in Urban Environments (IAEA, 2022), Management of Naturally Occurring Radioactive Material (NORM) in Industry (IAEA, 2022) and Remediation Strategy and Process for Areas Affected by Past Activities or Events (IAEA, 2022).
- The Agency maintains and operates marine and terrestrial environment laboratories in Monaco and Austria respectively, which use nuclear and isotopic techniques to develop analytical monitoring methods, study pollution processes and identify pollutants' sources. These techniques are also developed further, along with analytical procedures and guidelines plus reference materials for quality assurance.
- Stable isotopes and nuclear techniques are used to assess freshwater resources, biological systems, atmospheric processes, marine ecosystems and resources, and to improve agricultural practices.
- The IAEA studies the natural processes that influence the pollutants' global spread and their behaviour on land and sea, to understand how they interact with climate change patterns, assess their impact on ecosystems and develop strategies to mitigate their effects.
- The IAEA has developed science-based tools and techniques that help decision-makers protect the marine environment.
- The IAEA plays a key role in research and development of methods, and building capacity for the monitoring of radioactive and non-radioactive contaminants and biotoxins in seafood, through for example the use of the radio-ligand receptor binding assay, an analytic procedure used for an early detection of toxins during harmful algal blooms.
- In cases of environmental radioactive contamination, the IAEA assists affected Member States in their efforts to reduce the radiological exposure to safe levels.
- The IAEA supports the development, demonstration and deployment of radiation technology to treat industrial pollutants. With its assistance, radiation technologies are used to treat nitrogen oxides (NOx) and sulphur oxides (SOx) present in flue gases (e.g., combustion exhaust gas produced at power plants), as well as water effluents, for example from the textile dye and other industries. Through a process called 'hygienization', radiation is also used to render sewage sludge fit for agricultural application. Radiation can also be used to convert contaminants of high and emerging concern, such as pharmaceuticals and hormone mimicking substances, into small innocuous molecules.
- The IAEA initiative "NUTEC Plastics", funded in particular by its Member States, is dedicated to specifically tackle the reduction of plastics pollution, and the monitoring and assessment of its impact on the marine environment.

World Meteorological Organization

Identified impact on the different dimensions of pollution

AIR DIRECT WATER INDIRECT SOIL INDIRECT IMPACT COASTAL COASTAL CHEMICALS & DIRECT IMPACT WASTE

The World Meteorological Organization (WMO) is dedicated to international cooperation and coordination on the state and behaviour of the Earth's atmosphere, its interaction with the land and oceans, the weather and climate it produces, and the resulting distribution of water resources. Some of WMO's activities are directly aimed at tackling pollution:

- The Global Atmosphere Watch (GAW) programme provides reliable scientific data and information on aerosols, greenhouse gases, selected reactive gases, ozone, ultraviolet radiation and precipitation chemistry (or atmospheric deposition) (WMO, n.d.).
- The Dashboard on Hydrological Observations, Forecasting and the Governance of National Hydrological Services (NHSs) provides valuable information on operational hydrological services worldwide (WMO, n.d.).
- WMO Integrated Global Observing System (WIGOS). The immediate goal is facilitate the production of weather and climate services and products for the four initial priority areas of the Global Framework for Climate Services (GFCS) agriculture and food security, disaster risk reduction, health and water.

WMO collaborates with GESAMP WG-38 (Atmospheric Input of Chemicals to the Ocean) and WG-41 (Marine Geo-engineering) on marine litter. An assessment report published by the GESAMP WG-38 concluded that approximately 50 per cent of excessive nitrogen in the ocean comes from the atmosphere by direct deposition, suggesting that the feed of microplastics into oceans via atmospheric transport and deposition may be similar. Following the preliminary work by WG-38, WMO may become engaged in the topic of microplastics and begin to play a role in understanding transportation of microplastics by air, building on its expertise in atmospheric transport modelling.

United Nations Office for Outer Space Affairs

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER IMPACT SOIL NO MARINE & INDIRECT CHEMICALS & NO IMPACT IDENTIFIED COASTAL WASTE

The United Nations Office for Outer Space Affairs (UNOOSA) offers capacity building on space-based solutions for Member States, including on Earth observation, through collaboration with countries or country groups with specific needs through long-term projects. UNOOSA helps all countries access the potential of space science and applications and integrate these tools into national policies and practices.

Projects related to pollution are mainly linked to the agency's Space4Water project. In the project *Space4Water*, UNOOSA (UNOSPA, n.d.), with support from the Prince Sultan Bin Abdulaziz International Prize for Water, provides a platform on space applications in addressing water scarcity and water quality, among other water-related issues. In the *Space4Health* project, UNOOSA works on space applications for global health including issues such as air quality and water pollution that has led to cross-sectional projects and a collaboration with WHO. UNOOSA collaborates with the Atlantic International Research Centre in Portugal, which focuses on monitoring of the Atlantic Ocean, including the problem of microplastics. UNOOSA does not work with other UN agencies on marine litter-related topics. *Space Solutions for the Pacific* is a project to support small island states in the Pacific in accessing technologies for their own priorities, such as coastal and marine management (illegal fisheries).

UNOOSA also works on light pollution. Building on the initial findings and draft recommendations from the online workshops in 2020, UNOOSA and Spain, jointly with the International Astronomical Union (IAU), organized the "Dark and Quiet Skies for Science and Society" conference from 3 to 7 October 2021The conference focused on the implementation of recommendations, including by identifying technical and political actions needed to be taken by

individual stakeholders and in partnerships to achieve effective realization and satisfactory solutions for the preservation of dark and quiet skies (UN Office for Outer Space Affairs, 2022).

Space technologies can also play a key role in:

- Smart mobility, e.g., reduced fuel consumption by smarter planning and monitoring of driving behaviour;
- Smart Cities, through the application of Global Navigation Satellite Systems, Earth Observation and Satellite Telecommunications;
- Improvement of city services, such as smart waste management systems;
- Air quality monitoring; and,
- Smart Agriculture by combining Earth observation, satellite telecommunications and Global Navigation Satellite Systems.

Funding and Financial Mechanisms

International Monetary Fund

Identified impact on the different dimensions of pollution

AID	INDIRECT	WATER	INDIRECT	SOIL	NO IMPACT	MARINE	&	INDIRECT	CHEMICALS &	NO IMPACT
AIR	IMPACT	WATER	IMPACT	SUIL	IDENTIFIED	COASTAL		IMPACT	WASTE	IDENTIFIED

The International Monetary Fund (IMF) works to achieve sustainable growth and prosperity for all of its 190 member countries. It does so by supporting economic policies that promote financial stability and monetary cooperation, which are essential to increase productivity, job creation, and economic well-being. The IMF is governed by and accountable to its member countries.

Its efforts towards a pollution free planet are linked to its work in climate change and reducing CO2 and other GHG emissions. Within this line of work it also develops reports, working papers and other technical documents including From Polluting to Green Jobs: A Seamless Transition in the U.S.? (Bergant, Mano, & Shibata, 2022).

United Nations Population Fund

Identified impact on the different dimensions of pollution

AIR	NO IMPACT	WATER	NO IMPACT	SOIL	NO IMPACT	MARINE	&	NO IMPACT	CHEMICALS &	NO IMPACT
AIN	IDENTIFIED	WAILN	IDENTIFIED	JUIL	IDENTIFIED	COASTAL		IDENTIFIED	WASTE	IDENTIFIED

United Nations Population Fund (UNFPA) is the United Nations sexual and reproductive health agency, it works towards a world where every pregnancy is wanted, every childbirth is safe and every young person's potential is fulfilled (JPOSC, n.d.).

From the desk research no efforts towards tackling pollution were identified. A more in-depth analysis that includes interviews with members of the organization would be necessary to find out if the agency is conducting activities related to pollution and its characteristics.

The Global Environment Facility

Identified impact on the different dimensions of pollution

AIR	DIRECT IMPACT	WATER	DIRECT IMPACT	SOIL	DIRECT IMPACT	MARINE COASTAL	&	DIRECT IMPACT	CHEMICALS & WASTE	DIRECT
						COASIAL			WASIL	

The Global Environment Facility (GEF) is the world's largest funder of biodiversity protection, nature restoration, pollution reduction, and climate change response in developing countries. It finances international environmental conventions and country-driven initiatives that generate global benefits.

It organizes its word in main topics, several of which are directly linked to pollution:

- Chemicals and waste: The GEF is charged with eliminating the most harmful chemicals, which are covered
 by the Stockholm Convention on Persistent Organic Pollutants, the Minamata Convention on Mercury, and
 the Montreal Protocol on Substances that Deplete the Ozone Layer. The GEF also supports the achievement
 of broader sound management of chemicals and waste through its support to the Strategic Approach to
 International Chemicals Management (SAICM), the United Nation's policy framework to promote chemical
 safety around the world. The GEF's work on chemicals and waste focuses on four main programs in GEF-7:
- The Industrial Chemicals Programme seeks to eliminate or significantly reduce chemicals subject to international agreements.
- The Agricultural Chemicals Programme addresses the agricultural chemicals that are listed as persistent organic pollutants under the Stockholm Convention and agricultural chemicals that contain mercury or its compounds.
- The Least Developed Countries and Small Island Developing States Programme addresses the sound management of chemicals and waste through strengthening the capacity of sub- national, national, and regional institutions and strengthening the enabling policy and regulatory framework in these countries.
- The Enabling Activities Programme supports enabling activities under the Stockholm Convention and the Minamata Convention and supports global monitoring of chemicals.
- The GEF also invests in actions to reduce the use of mercury in products and processes; reduce emissions and releases of mercury from industrial processes; move toward the sound management of mercury; and address the use of mercury in artisanal and small-scale gold mining.
- Although the GEF is not formally linked to the Montreal Protocol, it actively supports its implementation. Under the terms of the Protocol, countries with economies in transition are not eligible for funding under the Multilateral Fund for the implementation of the Montreal Protocol. The GEF stepped in to fill the gap. The GEF helps the Russian Federation and nations in Eastern Europe and Central Asia to phase out their use of ozone-destroying chemicals under the terms of the Montreal Protocol. The GEF launched its own GHG accounting program in the early 2000s. Over the past 10 years, the GEF has developed GHG accounting methodologies for energy efficiency, renewable energy, and transport projects.

International Fund for Agricultural Development

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER INDIRECT SOIL DIRECT MARINE & INDIRECT COASTAL WASTE DIRECT IMPACT WASTE

The International Fund for Agricultural Development (IFAD) is an international financial institution and a specialized agency of the United Nations dedicated to eradicating poverty and hunger in rural areas of developing countries. Since 1978, it provided US\$23.2 billion in grants and low-interest loans to projects that have reached an estimated 518 million people. IFAD is committed to enhancing social, environmental and climate sustainability and resilience in the full range of its projects and programme, through the following:

- Systematic environmental safeguards and risk management. IFAD recently updated its Social, Environmental and Climate Assessment Procedures (SECAP) which include 9 Environmental, Social and Climate standards. Standard 2: Resource Efficiency and Pollution Prevention aims to avoid, minimize and manage the risks and impacts associated with hazardous substances and materials, including pesticides and avoid or minimize project-related emissions of short- and long-lived climate pollutants. In addition, two other standards are directly linked to pollution prevention: Standard 1 on Biodiversity Conservation, and Standard 6 on Community Health and Safety which includes health issues related to pollution and use of pollutants (IFAD, 2022). Such aspects are scrutinized at design, integrated in dedicated environmental management plans and reviewed yearly during implementation.
- Beyond identifying and mitigating risks, IFAD has an environmental and climate policy and mobilize green finance to strengthen further such aspects. IFAD's Adaptation for Smallholder Agriculture Programme channels climate and environmental finance to smallholder farmers. IFAD is also an executing agency of the Global Environment Facility (GEF), of the Green Climate Fund (GCF) and the adaptation fund.
- IFAD has an environmental and climate strategy and IFAD has adopted its first biodiversity strategy which further increase IFAD commitments and investments in biodiversity that requires also to reduce pollution.

IFAD has committed to allocate at least thirty percent of its climate finance to nature-based solutions that notably include improved use of inputs, recycling inputs and restoration practices.

The list below includes a sample of projects representing different levers of interventions across food system.

- Soil and water: promoting farming practices for more efficient use of inputs and/or decreased use.
 - o Promoting integrated pest and fertility management across agricultural investments: as part of safeguard implementation, projects need to present dedicated plans to manage pesticides and inputs. Such includes notably promotion of integrated pest management that strengthen capacities of farmers to monitor pests and disease, reduce pest and disease occurrence through specific practices and progressive use of eventual pesticides (starting with bio-pesticides instead of automatic preventive application of pesticides and using synthetic pesticides as the last resort). Similarly, integrated fertility management promotes integration of organic fertility management and more tailored use.
 - O Agro-ecology holistic approach to reduce pollution. According to recent stock take, two-thirds of IFAD's investments are already partially agro-ecological (IFAD, 2021) and 74% include biodiversity relative activities. To be classified as agro-ecology, projects notably invest in (i) increased resource use efficiency to reduce and/or substitute external inputs with bio-inputs (compost, biodigestor etc.); (ii) recycling of water, nutrients, biomass and energy (e.g. MERIT project in Mali works on the promotion of biodigestors and slurry use as an organic fertilizer), and (iii) diversification and integration of different farming sectors that enhance ecosystem services and reduce input needs (e.g. push and pull technology to control armyworm in Kenya with reduced use of pesticides (IFAD, 2022); introduction of Bio-inputs in e-voucher iv) landscape restoration that enhance water retention and filtration, thereby mitigating pollution risks.
 - Leveraging health awareness/food safety: For instance, in Indonesia, Bangladesh and India, awareness
 on food safety and health concerns of chemical misuse is a key factor driving adoption of integrated
 fertility practices that reduce the use of chemicals.
 - Precision agriculture to support more efficient use of inputs contributing to reduce input use and leakages: In Malawi, the Sustainable Agriculture Production Programme (SAPP) and partners conducted soil nutrient analysis, which enabled the identification of 5 areas with comparable fertility needs and suggested specific fertilizers blends now incorporated into policy on fertilizer for increased yield with decreased use of inputs.
- Treating waste & effluent & related water pollution: In Brazil, IFAD and GEF supported a project to reduce pollution from waste water and facilitate its re-use (IFAD, 2018) for home gardens by developing "family bio-water system".
- Marine and coastal pollution: IFAD invests in aquaculture and fisheries with specific attention to identify and address pollution, including agricultural waste. IFAD has been participating in the UN-wide EMG Network addressing Marine Litter and Micro-plastic Pollution. Activities include:
 - Supporting fishermen and aquaculture practitioners, invest in technologies and infrastructures, including upgrading of fishing gear, renewable energy in fishing and post-harvest operations (e.g. solar fish preservation technologies/ methods, solar coolers etc.), use of wind sail driven boats, reduction of waste and discouraging discarding of plastic.
 - Strengthening capacity and providing governments with the equipment to enable monitoring, control and surveillance of water/marine pollution affecting directly aquaculture;
 - Investments in green infrastructure, including mangroves and promoting aquatic foods with low carbon footprints such as seaweed.
 - Sustainable agricultural practices and waste management in agriculture in coastal areas as key entry points to also mitigate marine pollution risks.
- Air pollution: IFAD has several investments that seek to reduce forest fire, burning of crops and reduce pollution related to firewood.

- IFAD has several investments promoting ecosystem restoration and afforestation, including mitigating fire related risks that contribute to air pollution.
- o IFAD invests in renewable energy and more efficient cooking stove to reduce use of firewood as well as related air pollution affecting household health.
- Regional framework and policy engagement to address transboundary pollution: IFAD and ASEAN Secretariat have launched the Measurable Action for Haze-Free Sustainable Land Management in Southeast Asia (MAHFSA) Programme today to reduce transboundary haze pollution and its impacts in Southeast Asia (IFAD, 2019).
- Leverage public private partnership to address pollution while creating incomes and jobs.
 - Investing in agri-preneurs and rural youth jobs that can support improved use of inputs and advisory services or develop specific bio-input supply chain. In Nepal, the HVAP project trained local agrovets and facilitated linkages with organic input suppliers/importers to expand local access to organic inputs. In India, the Andhra Pradesh Drought Mitigation Project interested youth to become bio-entrepreneurs that produce and sell homemade bio-inputs. IFAD is exploring the viability of youth-supported plastic waste recycling enterprises in coastal areas
 - Leveraging public private partnership to increase co-financing and incentives for greener practices that reduce use of polluting inputs. For instance, IFAD investments in value chain most often includes good agricultural practices that monitor and reduce use of pollutant. In several countries, IFAD support partnership with organic value chain as well.
 - o In Kenya, IFAD, the Global Environment Facility (GEF) and the Nature Conservancy have been collaborating to set up the Upper Tana-Nairobi Water Fund (IFAD, 2020) that leverage "at the tap" downstream stakeholders that are interested in quality water—(e.g. Coca-Cola and East Africa Breweries Ltd, the Nairobi City Water & Sewerage Company) -- to finance "at the top" upstream investments in water conservation and sustainable agriculture that contribute not only to improved water flow but also reduce pollution risks and mitigate their impacts.

The World Bank -The World Bank Group

Identified impact on the different dimensions of pollution

AIR INDIRECT WATER INDIRECT SOIL INDIRECT MARINE & NO IMPACT CHEMICALS & INDIRECT IMPACT COASTAL IDENTIFIED WASTE

The World Bank Group consists of five organizations: the International Bank for Reconstruction and Development, The International Development Association, The International Finance Corporation, The Multilateral Investment Guarantee Agency, and the International Centre for Settlement of Investment Disputes.

The World Bank has destined more than 52 billion dollars in lending operations and technical assistance around the world targeting pollution, with over \$14 billion for air pollution, \$5 billion for solid waste management, and \$3.5 billion in toxic pollution abatement operations. The group funds projects that tackle pollution from several angles including: i) pollution management and environmental health; ii) water resource management; iii) land administration and management; and iv) environmental policies and institutions.

The World Bank Group supports developing countries and development partners in reducing pollution, implementing proper waste management, improving water and air quality, and promoting clean development and a more circular economy for healthier lives and better livelihood opportunities. This is done through lending and technical assistance at the global, regional and country level, that cover:

- improving air quality through the reduction of indoor/outdoor air pollution;
- improving water quality, both in freshwater and in oceans;
- integrating management of waste, including hazardous waste management and remediation of contaminated sites.

- mitigating short lived climate pollutants for climate change mitigation;
- · promoting environmental sustainability through cleaner production and pollution prevention; and
- strengthening environmental institutions by helping countries improve environmental governance, regulation, and enforcement.
- reducing plastic pollution, including in coastal areas.

The World Bank has financed several projects aimed at reducing pollution in various countries. For example, in China, the World Bank has been supporting Hebei Province to reduce concentration of air pollutants and increase energy efficiency and clean energy use in the Beijing-Tianjin-Hebei region. As a result, the region has achieved important reductions in PM2.5, including a 39% reduction in Hebei alone. In Egypt, through investment project financing, the World Bank is providing \$200 million dollars to reduce air and climate emissions from critical sectors and increase resilience to air pollution in Greater Cairo. Another project in the country also aims to improve the management and disposal of targeted stockpiles of obsolete pesticides, including persistent organic pollutants (POPs) and Polychlorinated Biphenyl (PCBs) in an environmentally sound manner. In Peru, a World Bank project is supporting air and water quality monitoring systems to improve the country's monitoring and analytical capacity, increase public access to environmental quality information and promote informed public participation in environmental quality management In Sub-Saharan Africa, the Bank is supporting environmental health concerns by preventing the exposure of humans and the environment to harmful chemicals and waste. Similarly, in Zambia, a \$65.6 million loan has been destined to remediate mining areas and reduce health risks from lead exposure. In the East African Community, governments consider e-waste as a serious emerging problem, despite their expansion of digital technology investments to support energy efficiency. In response, the Bank is providing technical assistance in ewaste management, regulatory frameworks, and capacity building. In Lao PDR, a development policy operation of \$40 million supported the government achieve fiscal sustainability and consolidate its path towards green growth. As part of this, pollution was addressed through several actions, including strengthening pollution monitoring and management, and encouraging the importation of paint brands offering unleaded paint.

The World Bank also assist its client countries through technical assistance, with several reports on pollution published in recent years. For example, the World Bank's analytical work Recycling of Used Lead-Acid Batteries: Guidelines for Appraisal of Environmental Health Impacts aims to address information gaps by providing a pragmatic framework for data collection, environmental and biological sampling, and the analysis that should be used at ULAB sites to link environmental contamination to human exposures and health outcomes. The report Getting Down to Earth: Are Satellites Reliable for Measuring Air Pollutants that Cause Mortality in Low-and Middle-Income Countries explores the challenges faced by LMICs regarding measuring the actual numbers and impacts of PM2.5 and highlights the needs for LMICs to strengthen support for the establishment of ground-level monitoring networks to measure air pollutants that cause mortality. Throughout various reports, the World Bank has also estimated the economic burden on countries caused by pollution. For example, a World Bank report estimated the global cost of air pollution to be over 8 trillion dollars, equivalent to 6.1% of global GDP. These reports provide up-to-date monetary estimates of pollution's health damages with the goal of supporting policy makers and decision-makers prioritize pollution amid competing development challenges. The World Bank is currently undertaking a similar approach to estimate the global economic costs of lead exposure. Through country environmental analyses, the Bank helps inform dialogue with countries to raise awareness of environmental problems affecting poor people and improve understating of the linkages between environmental and growth sectors. For example, in the Lao People's Democratic Republic the Bank's analytical work identified air pollution; microbiological water pollution; and lead exposure as priority environmental management for the Government.

Throughout its work, the Bank also seeks to highlight and support client countries understand the linkages between the most pressing environmental development challenges – biodiversity loss, climate change and pollution - and provide ways to tackle them that will result in co-benefits. For example, a report on Lao PDR found climate change to be amongst the highest priority threats to the country's biodiversity values. Several other analytical works have focus on the linkages between air pollution and climate change. For example, short-lived climate pollutants, like black carbon and methane, have been identified as both powerful climate forcers and dangerous air pollutants that have harmful effects on the people and the environment. The World Bank is using this evidence base to support client countries to develop integrated air quality management and climate change mitigation strategies, recognizing that these are the most efficient approach to clean air and a safer climate future. Another report, Are All Air Pollution

Particles Equal? How Constituents and Sources of Fine Air Pollution Particles (PM2.5) Affect Health, also found that PM2.5 from fossil-fuel combustion poses a larger cardiovascular disease risk per unit mass of PM2.5 than soil or biomass particles. The World Bank is similarly using the findings of this analytical work to help client countries prioritize air quality management interventions.

In 2018, the World Bank established a Multi-donor Trust Fund PROBLUE to foster the development of integrated, sustainable, and healthy marine and coastal resources. PROBLUE addresses threats posed to ocean health by marine pollution, including plastics.

To scale up pollution management investments and policy reforms, the World Bank is designing new global program on pollution management and the circular economy. This program aims to help low-and middle-income countries achieve the Sustainable Development Goals through pollution prevention and abatement interventions. Other Bank Trust Funds also work on pollution-related activities.

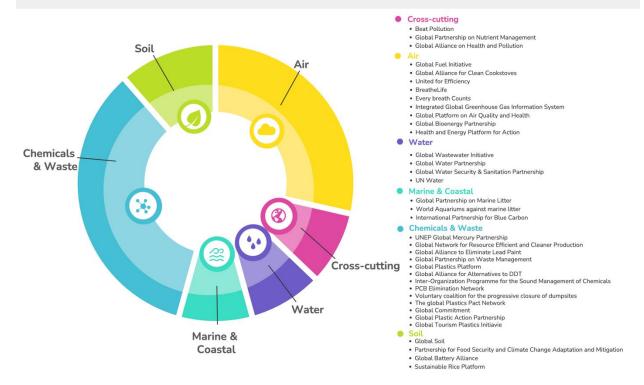
Partnerships

Collaboration among UN entities plays a critical role in the road towards a pollution-free planet. It helps address knowledge and capacity gaps and leverage efforts and financial resources while multiplying results. Agencies currently participate in and lead UN-UN partnerships as well as multistakeholder alliances.

These partnerships have various natures and can therefore achieve different results: business and trade cooperation can help transform markets towards a more efficient use of resources within production and consumption. Knowledge based agreements can help share successful policies, technologies and strategies. Financial and economic collaboration address inequality and help address pollution as the global issue it is.

Figure 3 Partnerships addressing pollution with UN participation

Global partnerships against pollution



Source: Own elaboration based on data gathered during the mapping of existing efforts process

Figure 3 shows how partnerships that address pollution - in which UN entities are the main lead or participate actively – are distributed along the environmental dimensions of pollution¹². On one hand, the Figure shows there are several ongoing initiatives to join efforts in the battle against pollution, addressing all five dimensions of pollution. This demonstrates that stakeholders have a strong intention to collaborate among each other.

On the other hand, Figure 3 reflects an unbalanced distribution of such efforts, in favour of chemicals & waste (13 identified partnerships) as well as air (9 identified partnerships). Considering that marine & coastal (3 partnerships) dimension could be understood as a subcomponent of the water dimension (3 additional partnerships); the soil dimension stands out as the less approached one (4 identified partnerships).

Because the problem of pollution is a broad and complex one, addressing it from its different dimensions is effective to reduce its scope and therefore facilitate the definition of targets and the implementation of action plans. However, in order to minimize gaps and overlaps a wholistic approach against pollution is needed. Three partnerships with a cross-cutting perspective towards pollution were identified: Beat Pollution, the Global Partnership on Nutrient Management and the Global Alliance on Health and Pollution. These platforms could be leveraged to converge the otherwise scattered efforts.

The criteria used to select relevant partnerships for this diagram was: a) to be a network; and b) that promotes global collaboration; and c) addresses pollution related issues; and d) has active UN participation". It is worth noting that there are other networks or alliances that address pollution related issues but are not included in the diagram due not fulfilling one or more of the criteria. Some examples include: the AMR awareness week, the UN Water conference as well as several regional fora.

This analysis could be further improved, assessing each partnership based on the contribution each entity can make in terms of effectiveness and the entity's comparative advantage. This mapping of efforts can help as an input for such process, by identifying activities undertaken by UN entities. Also, such an approach could promote the involvement of entities with mandates related to topics such as trade, humanitarian aid, health and sanitation, and human rights, including the human right to a healthy environment, and entities that carry out activities indirectly related to pollution, which are often not engaged in relevant collaboration or partnerships.

Capacity gaps, opportunities for further collaboration and concluding remarks

This section identifies capacity gaps and opportunities for further collaboration and leveraging the potential of UN agencies and their initiatives vis-à-vis the areas of action defined in the Implementation Plan (UNEP, 2019): knowledge, implementation, infrastructure, awareness and leadership.

Knowledge

The UN Environmental Assembly prioritizes strategies aimed at strengthening knowledge. As shown in Figure 4, almost 40% of UNEA's resolutions related to pollution include at least one mandate towards improving knowledge on pollution management. UN efforts are indeed showing results, as pollution related information has improved dramatically alongside advancements in information technology, availability of guidelines and monitoring platforms such as the pollutant release and transfer registers (PRTRs) that are being designed by countries throughout the world

Still, greater understanding of the sources of contamination, exposure pathways, and impacts and solutions is needed. Emerging issues and new research findings on the impacts on health and ecosystems need to be considered. The Implementation Plan (UNEP, 2019) stressed in particular the need of strengthening capacity for analysis of pollution-related information to improve pollution governance. This is an aspect where UN entities can play a very important role by designing methodologies on water quality, air quality, waste management, hazardous wastes and marine pollution and providing capacity-building support for countries to improve their ability to compile and use pollution-related statistics.

Several initiatives that advance knowledge related to pollution were identified, although the lack of systematization of forms and mechanisms for sharing knowledge makes their visibility difficult. For example, the United Nation Statistical Commission empowered the UN Statistics Division to coordinate the Intersecretariat Working Group on Environment Statistics (IWG-ENV) and develop and harmonize concepts, methods and standards, as well as coordinate data collection and capacity development in environment statistics. There is great opportunity to further enhance the IWG-ENV work towards tackling pollution, though at the moment the Environmental Statistics section does not include Pollution as a cross-cutting topic and the Environmental Glossary of the United Nation Statistical Commission does not have a definition for pollution (Department for Economic and Social Information and Analysis).

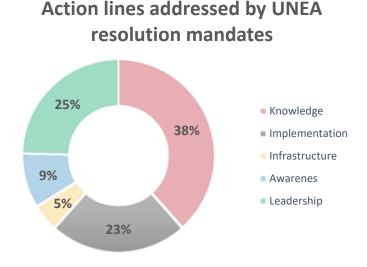
Additionally, a multidisciplinary approach could help organize and analyse data and information across sectors. Economic analysis, for example, could demonstrate the multiple benefits of action on pollution, including cost of inaction. Addressing pollution through gender inequality, occupational health and other intersectional approaches can allow further analysis of how pollution solutions can help tackle health issues. Many of these high-impact actions fall within the scope of the UNEP programme of work, but others call for partnerships, such as with WHO, ILO, UN Women and FAO.

Institutional capacity within the UN system has been identified to address these gaps: the mapping of existing efforts revealed that there are 25 UN entities implementing programmes that tackle directly at least one pollution dimension, seven of which have direct impact in all five dimensions: GEF, UNDP, UNITAR, UNIDO, UNEP, BRS Secretariat and the Office of the High Commissioner for Human Rights.

During the mapping of efforts process no centralized database on pollution efforts or similar mechanism was identified. This scenario increases the risk of duplication of efforts among UN entities. As a result, other entities and stakeholders, such as Member States or population in general, are not well-informed of UN entities' work on pollution. Existing knowledge sharing portals within the UN System could be used as basis for further development. For example, InforMEA: the United Nations Information Portal on Multilateral Environmental Agreements is a one-stop portal for information on Multilateral Environmental Agreements — or MEAs – searchable by key terms across treaty texts, COP decisions, national plans and reports, laws, court decisions and more. The initiative behind InforMEA is co-chaired by UNEP and CITES and brings together 22 MEA Secretariats hosted by 5 UN organizations and IUCN, in addition to observers and partners, to develop harmonized and interoperable information systems for the benefit of parties and the environment community at large. InforMEA is facilitated by UNEP and financially supported by the European Union. Another example is the DesInventar Disaster Loss Accounting System is supported by UNDRR. DesInventar is a conceptual and methodological tool for the generation of National Disaster Inventories and the construction of databases of damage, losses and in general the effects of disasters to support national planning and investment decisions which currently do not necessarily take into account disaster risks. Member States also have the possibility to track pollution as a hazard through DesInventar.

Additionally, a mechanism for progress monitoring of entities' activities on pollution could be developed. An approach in this direction is being implemented by UNEP through the UNEA Monitoring and Reporting Portal¹³. In it, the progress of all UNEA Resolutions, Ministerial Declarations and Decisions is reported. The scope of this platform could be broadened to include all UN system environmental resolutions. For the sake of the systematization and standardization of the battle against pollution, the portal could include the five dimensions of pollution as monitoring variables. Figure 5 reflects the variables that are currently used; while it does include pollution in its scope it allows for overlaps, for example, between the Chemicals and Pollution Action and the Chemicals and the Waste and Air Quality outcome variables. In order to increase coherence within the UN system wide approach towards a pollution free planet, the action lines suggested by the Implementation Plan – knowledge, infrastructure, implementation, awareness and leadership - could also be considered progress monitoring variables.

Figure 4 Action Lines (as suggested by the Implementation Plan (UNEP, 2019) addressed by UNEA resolution mandates



Source: Own elaboration based on UN Environmental Assemblies up to UNEA 5

-

¹³ Available at: https://unea.unep.org/monitoring/

Figure 5 UNEA Monitoring and Reporting Portal's progress monitoring variables



Source: UNEA Monitoring and Reporting Portal

Implementation

The mapping process revealed the lack of a common definition of pollution, which can be recognized as a challenge to assess the scope of related activities conducted by the UN system and consequently to properly identify capacity gaps and effectively implement opportunities for collaboration. There is a great opportunity in harmonizing and standardizing pollution related terminology across the UN system.

The breadth of the term and the lack of an agreed categorization of the various types of pollution make it difficult to systematize and classify activities. Most UN entities organize their websites by grouping their work in "topics", "action lines", "focus areas" or similar categories. The term "pollution" is rarely among these main topics. With the exception of UNEP – that includes "chemicals & pollution action" as one of its three main areas of work – no UN entity includes the term pollution in their main categories of work. Several agencies do refer to their efforts towards tackling pollution indirectly, for example, under categories like chemicals and waste; circular economy; and renewable energies. Some of the websites that do not consider pollution in their main categories, will include it in secondary level categorizations. This is the case of the World Bank Group that mentions "pollution management and environmental health" as one of the categories for which they fund projects.

A large number of initiatives related to pollution have been identified through this mapping exercise. Some of them address individual pollutants (for example the Secretariat of the Minamata Convention on Mercury), some involve groups (GEF's efforts against POPs), others are directed at specific environmental media (such as the International Maritime Organization), other address the source (this is the case of the UN World Tourism Organization), and some consider all dimensions of pollution within a wider scope if environment and sustainability without specifying any further details.

A harmonized categorization of the several types of pollution would allow comparison among the initiatives in order to provide a more holistic analysis of what is being covered and would allow gaps and overlaps to be identified. In addition, this analysis would help to better identify the entities to participate at the different initiatives and partnerships. Entities with remits for topics such as trade, humanitarian efforts, health and sanitation including the human right to a healthy environment, which are directly or indirectly related to pollution, may have ongoing activities but no collaboration or partnerships specifically on the issue.

Developing harmonized terminology and systematization, in line with the common approach to pollution, could serve to ensure that all UN entities become aware of their potential role towards pollution and advance in its implementation and would facilitate the follow-up of efforts and its communication. Figure 6 shows the amount of impact that UN entities are having in the five dimensions of pollution, according to their area of focus. A harmonized classification of efforts could result in a better understanding of these panorama.

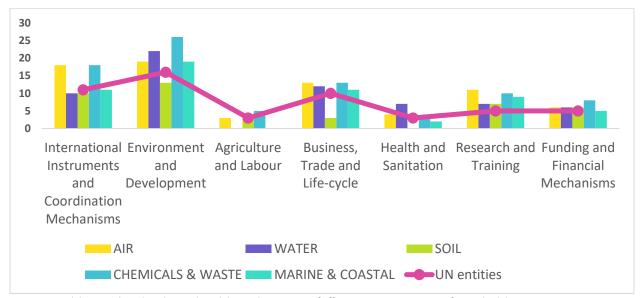


Figure 6 UN efforts in the Implementation Plan's dimensions of pollution according to their area of focus.

 $Source: own\ elaboration\ based\ on\ data\ gathered\ during\ the\ mapping\ of\ efforts\ process.\ See\ annex\ IV\ for\ methodology.$

The mapping also noted restricted efforts by the UN System in the production stage: limited engagement with producers was identified, thus limiting UN-wide collaboration in preventing pollution from the cradle. Figure 6 shows level of impact on the different dimensions of pollution that UN entities with the same main area of focus are achieving. The diagram reveals that UN entities working in Business, Trade and Life-cycle and entities working in Agriculture and Labour are having impacts below average. Activities aiming at Air and Chemicals & Waste within the Business, Trade and Life-cycle focus area are an exception.

With most current efforts aimed at providing technical assistance to Member States, fewer efforts are directed towards the private sector. The main focus in this area is the preparation of guidelines for industries, for example by FAO, UNCTAD, UNDP, UNECLAC, UNEP and UNIDO. Energy efficiency is also largely included in programmes, although not necessarily focused particularly on industrial use. A stronger approach towards private sector would be necessary if a significant and measurable reduction in emissions and releases of pollutants is to be achieved by companies and industries along the value chains. The UN Global Compact strategy - that works to mobilize a global movement of sustainable companies and stakeholders - has a strong potential to work as a joint platform in this direction.

Some efforts related to upstream processes, such as product (re-)design, the use of sustainable materials and modernization of industrial technologies, were identified but remain limited. ITC for example, provides small businesses with capacity building on resource use and circular production practices, and links them to those in

business ecosystems to innovate, access technologies, services and markets. Nevertheless, consumption and production practices appear to be considered a secondary option for tackling the problem; as pollutant monitoring and waste management solutions are preferred. To effectively address the problem the UN system could to establish a holistic perspective of pollution where all stages – prevention, generation, monitoring, remediation—are considered.

Infrastructure

Infrastructure to monitor, prevent, manage and control pollution is key to developing and adopting better practices, but also reduces exposure to hazards associated with pollution. Figure 4 reveals that Infrastructure is the least mentioned action line in UNEA resolutions and their mandates. Considering that efforts towards building and strengthening infrastructure tend to have higher costs, a lower occurrence of calls towards them is an understandable outcome. One of the biggest capacity gaps is the lack of data and information on pollution levels in many parts of the world. The lack of data makes it difficult to identify pollution hotspots and to develop effective strategies for pollution control and management.

In this scenario UN entities within the Funding and Financial Mechanisms group, such as the GEF or the World Bank, but also public and private funds, became vital. Their contribution and leadership is needed to ensure the provision of pollution prevention and mitigation infrastructure globally.

Nevertheless, other UN entities can also support this action area by identifying options and cases of innovation, for example, through UNEP's Sustainable Consumption and Production works or WFP's packaging improvement projects. Furthermore, organizations such as WTO can promote trade and improve access of environmental goods and technology to reduce pollution, for example, through the Informal Dialogue on Plastics Pollution and Environmentally Sustainable Plastics Trade. This initiative could be expanded to cover other dimensions of pollution.

Additionally, instruments such as government procurement, subsidies, tariff reductions for environmental goods and market access for environmental services can provide effective incentives for pollution-reducing technologies and actions and innovative solutions to pollution. In this aspect, UN entities, such as WTO or UNIDO, can play a significant role.

Awareness

Increased awareness of the consequences of consumption choices and sensibilization on risks, available solutions and alternative products enable consumers to make informed choices. Without broader public awareness, the sociopolitical pressure needed to prevent and mitigate pollution will not follow. Information disclosure and greater awareness enable the development of more effective interventions, support meaningful and effective participation, and empower the public to play a role in ensuring that government institutions and the regulated community and businesses meet their legal obligations.

The mapping of efforts identified strong UN led awareness campaigns such as the Beat Pollution strategy. Because of their particular competences, some UN entities such as UNITAR and UNU could play a key role in support of these initiatives. However, in order to reach all audiences and achieve effective mainstreaming of the issue of pollution, all entities should adopt UN awareness campaigns from their own perspective. UNICEF, for example is a key player for engaging children and adolescents. As the future leaders and inhabitants of the planet, young people need to adopt more sustainable practices in their homes and future workplace.

Leadership

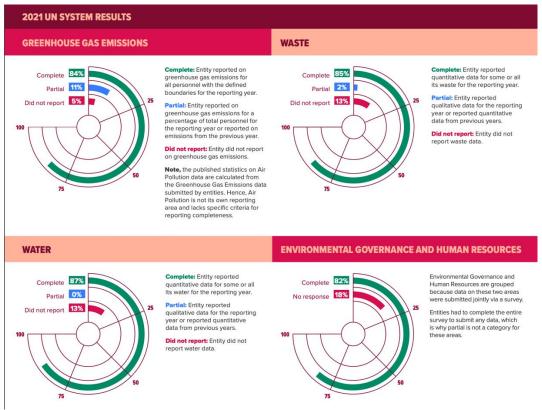
Addressing pollution requires deep multi-level and multi-actor involvement, coordination, and policy coherence across global, regional, national, subnational and local levels. The UN entities can strengthen their collaborations and partnerships among each other and with other stakeholders such as governments, civil society organizations, and the private sector to enhance their efforts towards tackling pollution. This can help to leverage expertise, resources and knowledge across different sectors.

On an inter UN system level, while there are currently many good ongoing initiatives, these are not necessarily as coherent and integrated as they could be. Some UN entities whose expertise could be relevant in combating pollution are not participating in this work, may be due to a lack of a direct mandate or resources. The absence of effective coordination could lead to overlaps and confusion since various UN organizations could be implementing projects at the same time. In the end, the impact is not maximized, instead there is a risk of lack of sustainability in the UN approach.

On an intra UN system level, the approach should also address pollution generated by UN entities' projects and basic functioning activities should be tackled as well. In December 2018, the Secretary-General of the United Nations asked the system to raise the level of its internal ambitions and intensify its efforts to combat climate change from within. The response to this request was the Strategy for sustainability management in the United Nations system, 2020–2030 (CEB/2021/2/Add.1). The strategy included the Greening the Blue initiative, a UNEP proposal to engage and support the UN System in the transition towards a greater environmental sustainability in the management of its facilities and operations. Phase I covered five environmental areas: i) GHG emissions; ii) Waste; iii) Water; iv) Air Pollution; and v) Biodiversity. The latest annual report (UNEP, 2022) revealed that over 80% of UN Entities completed their reporting commitments. However, as shown in Figure 8, a large part of the remaining 20% (between 5% and 18% depending on the reporting area) opted not to report at all. The mapping of efforts releveled that only a few UN entities describe their efforts to lower their own pollution footprint and they do so without mentioning the Greening the Blue strategy or the Strategy for sustainability management. Phase II of the Strategy for Sustainability Management in the United Nations System, 2020–2030 takes septs towards leadership in environmental and social sustainability. The first pilots should take place during 2023 and could imply an opportunity to mainstream the Strategic Approach Against Pollution within the UN System.

Finally, addressing pollution also requires greater multi-level and multi-actor involvement, coordination and policy coherence across global, regional, national, subnational and local levels. In this sense, making use of other UN entities network could serve to bring new private sector actors on board. The UN could also benefit from better coordination at a country level to become more efficient and effective in finding local solutions, sharing best practices and facilitating knowledge exchange. In this light, there is a need for clearly defined roles for each entity in relation to pollution to avoid competition and duplication of efforts.

Figure 7 Reporting completeness per environmental area of the Strategy for sustainability management in the United Nations system, 2020–2030



Source: Greening the Blue Report 2022 (UNEP, 2022)

Concluding remarks

It is evident that there are several efforts being dedicated towards tackling pollution within the UN system. However, a cohesive and integrated approach is necessary if tangible, ambitious goals are to be achieved. The mapping of efforts showed that efforts are currently uneven. There is an unbalanced use of resources, with most activities aiming at chemicals & waste and air pollution dimensions; in detriment of soil (see Figure 3: Partnerships addressing pollution with UN participation and Figure 6: UN efforts in the Implementation Plan's dimensions of pollution according to their area of focus).

In terms of the line of action undertaken, knowledge and capacity building activities are the most implemented, overwhelmingly exceeding infrastructure and awareness actions (see Figure 4: Action Lines (as suggested by the Implementation Plan (UNEP, 2019) addressed by UNEA resolution mandates).

To succeed in the battle against pollution, the UN system will have to institutionalize and systematize its efforts. There is a pressing need for common definition of pollution as well as for a standardized classification of the dimensions of pollution. Although it is understandable and expectable that different UN entities will approach the problem from different angles in response to their particular mandates; the communication of their activities, targets and results should be harmonized.

In order to accomplish such an institutionalization of the battle against pollution, a well-defined leadership along with a transparent assignation of roles and responsibilities for each member of the UN system is critical. Avoiding overlaps and identifying gaps will require strong and meticulous coordination.

The mapping of efforts process left no doubts of UN system's will to tackle pollution. However, it remained equally evident that a short and medium-term roadmap to agree upon and sensibilize next steps would be highly advantageous. UN, as well as other stakeholders are investing a substantial amount economic, human and time

resources against pollution; it is only sensible to develop an integrated and cohesive approach to guide and capitalize these efforts towards a pollution free planet.

Annexes

Annex I: Members of the EMG Consultative Process to prepare a UN system-wide approach on a Pollution-Free Planet

Organization
CBD
DESA
FAO
IAEA
ILO
IOM
ITC
ITU
OHCHR
Secretariat of the Convention on Wetlands
Secretariat of the Minamata Convention on Mercury
UNCTAD
UNDP
UNDRR
UNECE
UNESCO
UN-Habitat
UNICEF
UNIDO
UNODC
UNODC
UNOPS
UNU
UNWTO
UPU
WFP
WIPO
World Bank
WTO

Annex II: Questions included in the online mapping of efforts survey

In order to have a greater coverage of UN initiatives related to pollution, members of the EMG were invited to participate in an online survey. The objective of the survey was to gather first hand data on the direct and indirect mandates and activities of each entity; examples of relevant initiatives carried out by the entity; existing partnerships and collaborations; and ambitions and emerging actions of the entity. The questions included in the survey were the following:

- 1. Organization:
- 2. Position/role:
- 3. What type of contaminants are you primarily targeting?
- 4. How would you categorize your organization's involvement in pollution:
 - a. Direct (e.g., organization has a direct mandate and has significant activities)
 - b. Partial (e.g., organization has some activities within a broader role)
 - c. Related (e.g., organization has activities in areas that may be linked to pollution)
 - d. None
- 5. What type of pollutants are you primarily targeting?
 - a. Chemicals or specific chemicals
 - b. Particulate matter
 - c. Waste or specific streams of waste
 - d. Nutrients
 - e. Plastics
 - f. My organization does not target any particular type of pollutant
- 6. What environmental media or forms of pollution, if any, do you target?
 - a. Air pollution
 - b. Water pollution
 - c. Marine and coastal pollution
 - d. Soil pollution
 - e. My organization does not target an environmental media in particular
- 7. Please indicate your primary mandate
 - a. Human rights
 - b. International Instruments and Coordination Mechanisms
 - c. Environment and Development
 - d. Agriculture and Labour
 - e. Business, Trade and Lifecycle
 - f. Health and Sanitation
 - g. Research and Training
 - h. Funding and financial mechanisms
- 8. Please indicate any relevant resolutions or decisions of governing bodies related to the topic of pollution that the mapping should take into consideration, besides UNEA resolutions. Please include links and files with all relevant information.
- 9. What action areas to accelerate progress towards a pollution-free planet does your organization focus on? (You may select more than one option)
 - a. Knowledge: Science for evidence-based policy and action;
 - b. Implementation: capacity, incentives and integrated policies;
 - Infrastructure: technologies, innovation and Infrastructure: technologies, innovation and circularity
 - d. Awareness: outreach, communication, education and consumer information
- 10. Leadership: mobilization of stakeholders, leaders and partners to address different forms of pollution
- 11. Please further elaborate on the specific focus of your work.
- 12. What are key pollution- relevant projects, programmes and initiatives carried out/funded by your organization? Please include links and files with all relevant information.
- 13. Which is the specific approach addressed by these projects and initiatives: e.g., which geographical regions, which specific pollutant or environmental compartment are they targeting, which action, sector/field?

- 14. What is the geographical focus of these projects and initiatives. For example, global / specific regions, subregions, (please specify) / particular group of countries (please specify) / other
- 15. Are these projects targeting a specific demographic, sector, or field? If so, please briefly describe it.
- 16. Are you involved in partnership(s) with other organizations pollution-related issues? Please specify UN and non-UN agencies with which you partner.
- 17. What guidance/expertise/approaches/methodologies does your organization have that could uniquely inform collective UN efforts towards a pollution free planet?
- 18. What areas of your work could benefit from further collaboration with other UN entities?
- 19. What specific gaps/action areas/issues require concerted action among UN entities in your view?
- 20. Please provide any other information or views regarding how to achieve additional synergies between different agencies, funds and programmes of the UN System with activities and initiatives and overall better alignment and more impactful efforts.

Annex III: Efforts towards tackling pollution identified within the UN System

To ensure efficiency and alignment with activities conducted previously by the EMG and the Consultative Process, the mapping followed the structure of the EMG Marine Litter and Microplastics report, grouping UN entities according to broad thematic areas and sectors based on the main focus of their activities in the topic of pollution: 1) International Instruments and Coordination Mechanisms, 2) Environment and Development; 3) Agriculture and Labour; 4) Business, Trade and Life-cycle; 5) Health and Sanitation; 6) Research and Training; 7) Funding and Financial Mechanisms.

Additionally, the mapping included a description of the impact of each UN entity's effort on the different dimensions of pollution, suggested by the Implementation Plan (UNEP, 2019): water; soil; marine & coastal; and chemicals and waste. The impact is classified as follows:

- DIRECT IMPACT: the entity implements efforts that directly and significantly impact on the environmental dimension, usually following a specific mandate in that direction.
- INDIRECT IMPACT: the entity implements efforts that have an indirect impact on the environmental dimension or implement a few specific acuities that directly impact on it.
- NO IMPACT IDENTIFIED: the entity does not implement any activity does impacts on the environmental dimension.

The classification was done based on the information gathered through official websites of each entity and the online survey¹⁴. It should be understood as an illustrative tool that aimed to offer a general indication of the UN System current situation regarding pollution tackling efforts. Table 6 details the evaluation o efforts, with the following reference key:

- D: Direct impact
- I: Indirect impact
- · Blank field: No impact identified

Table 6 Efforts towards tackling pollution identified within the UN System

Area of focus	UN entity	Air	Water	Soil	Marine & Coastal	Chemicals & Waste
International Instruments and Coordination Mechanisms	Secretariat of the UN Convention to Combat Desertification	D				
International Instruments and Coordination Mechanisms	United Nations Department of Economic and Social Affairs, Division for Sustainable Development	1			ı	1
International Instruments and Coordination Mechanisms	Ozone Secretariat		I	ı	ı	D
International Instruments and Coordination Mechanisms	Secretariat of the Minamata Convention on Mercury	D	I	D	ı	D
International Instruments and Coordination Mechanisms	Secretariat of the Basel, Rotterdam and Stockholm Conventions	D	D	D	D	D
International Instruments and Coordination Mechanisms	Secretariat of the Convention on Biological Diversity	1	ı	ı	D	1
International Instruments and Coordination Mechanisms	Secretariat of the Convention on Migratory Species	1	I	ı	I	D

¹⁴ See Annex II.

-

International Instruments and Coordination Mechanisms	Ramsar Convention on Wetlands Secretariat		I		1	
International Instruments and Coordination Mechanisms	Secretariat of the UN Framework Convention on Climate Change (UNFCCC)	D	ı			1
Environment and Development	United Nations Office for Disaster Risk Reduction	1	ı	ı	I	1
Environment and Development	Office for the Coordination of Humanitarian Affairs	1	1			D
Environment and Development	United Nations Educational Scientific and Cultural Organization	1	D		D	1
Environment and Development	United Nations High Commissioner for Refugees	1				1
Environment and Development	United Nations Environment Programme	D	D	D	D	D
Environment and Development	International Maritime Organization		D		D	D
Environment and Development	United Nations Development Programme	D	D	D	D	D
Environment and Development	Economic and Social Commission for Western Asia	1				1
Environment and Development	International Organization for Migration	1	I	ı	I	1
Environment and Development	Office of the High Commissioner for Human Rights	D	D	D	D	D
Environment and Development	Economic and Social Commission for Africa	1	I	1		1
Environment and Development	United Nations Economic Commission for Europe	D	D	1	1	D
Environment and Development	Economic and Social Commission for Latin America and the Caribbean					1
Environment and Development	Economic and Social Commission for Asia and the Pacific				1	1
Agriculture and Labour	Food and Agriculture Organization	1		D		D
Agriculture and Labour	International Labour Organization	1				1
Agriculture and Labour	World Food Programme	1				1
Business, Trade and Life-cycle	International Civil Aviation Organization	D				I

Business, Trade and Life-cycle	International Telecommunications Union	1				1
Business, Trade and Life-cycle	Universal Postal Union	1				1
Business, Trade and Life-cycle	World Intellectual Property Organization	1	I		1	1
Business, Trade and Life-cycle	United Nations Human Settlements Programme	1	ı			1
Business, Trade and Life-cycle	United Nations Industrial Development Organization	D	D	D	D	D
Business, Trade and Life-cycle	World Trade Organization		1		I	1
Business, Trade and Life-cycle	United Nations Conference on Trade and Development		ı		I	1
Business, Trade and Life-cycle	International Trade Centre	1	I		I	1
Business, Trade and Life-cycle	United Nations World Tourism Organization	1	1		1	1
Business, Trade and Life-cycle	United Nations Office for Project Services	1	D		D	1
Health and Sanitation	World Health Organization	D	D		1	1
Health and Sanitation	United Nations Children's Fund	1	D			1
Health and Sanitation	United Nations Office on Drugs and Crime		I		I	1
Research and Training	United Nations Institute for Training and Research	D	D	D	D	D
Research and Training	United Nations University	1	ı	- 1	1	1
Research and Training	International Atomic Energy Agency	D	1	1	D	D
Research and Training	World Meteorological Organization	D	ı	1	1	D
Research and Training	United Nations Office for Outer Space Affairs	1	I	I	I	
Funding and Financial Mechanisms	International Monetary Fund	1	ı		I	1
Funding and Financial Mechanisms	United Nations Population Fund					
Funding and Financial Mechanisms	The Global Environment Facility	D	D	D	D	D
Funding and Financial Mechanisms	International Fund for Agricultural Development	ı	I	D	I	D
Funding and Financial Mechanisms	The World Bank -The World Bank Group	1	I	ı		I

Annex IV: Figure 6 elaboration methodology

Figure 6: **UN efforts in the Implementation Plan's dimensions of pollution according to their area of focus** was elaborated considering the evaluation of efforts towards tackling pollution being implemented within the UN System, as revealed by the information gathered during the mapping of efforts process.

The figure shows the impact that UN entities are having in the five dimensions of pollution. In order to estimate the impact of entities' efforts on each dimension of pollution, the data showed in Annex III was considered. Three points were allocated for each field classified as Direct Impact; 1 for fields classified as Indirect Impact and 0 for those with no impact identified.

It is important to highlight that the classification was elaborated as an illustrative tool that aimed to offer a general indication of the UN System current situation regarding pollution tackling efforts. It was based mostly on desk research and therefore a more in-depth analysis that includes, among others, in-depth interviews with members of the organizations would be necessary to gather a more accurate review of the situation.

Bibliography

- UNEP. (2019). Implementation plan "Towards a Pollution-Free Planet".
- United Nations Environment Management Group . (2022). Addressing marine litter and microplastics: UN system-wide contributions.
- CITES Secretariat. (n.d.). Convention on International Trade in Endangered Species of Wild Fauna and Flora. Retrieved from The CITES Secretariat: https://cites.org/eng/dec/index.php/42023
- Welcome to the United Nations. (n.d.). Retrieved from DEPARTMENT OF OPERATIONAL SUPPORT: https://operationalsupport.un.org/en/environment
- United Nations. (n.d.). *DEPARTMENT OF OPERATIONAL SUPPORT*. Retrieved from Our Approach: https://operationalsupport.un.org/en/our-approach
- UNCCD Secretariat. (n.d.). *UNCCD*. Retrieved from The Secretariat: https://www.unccd.int/convention/secretariat#:~:text=It%20aims%20to%20restore%20th e,is%20located%20in%20Bonn%2C%20Germany.
- UNCCD Secretariat. (n.d.). *UNCCD Events*. Retrieved from Gender transformative approaches to address climate change, biodiversity loss and pollution: https://www.unccd.int/events/other/gender-transformative-approaches-address-climate-change-biodiversity-loss-and
- United Nations, Department of Economic and Social Affairs Climate Review. (2021). *Climate Review*. New York: United Nations, Department of Economic and Social Affairs.
- Schuyler QA, R. L. (2021). Assessment of plastic hotspots in the Lower Mekong and Ganga River Basins. Priority intervention areas for preventing, combating and removal of plastic in areas important for migratory species. A methodology and risk analysis. Australia: (CSIRO),.
- Government of Australia. (2020). *LIGHT POLLUTION GUIDELINES FOR WILDLIFE INCLUDING MARINE TURTLES, SEABIRDS AND MIGRATORY SHOREBIRDS*. Gandhinagar,: CONVENTION ON MIGRATORY SPECIES.
- Courouble, M. (2021). *Global Wetland Outlook: Special Edition*. Gland,: CSecretariat of the Convention on Wetlands.
- Joint Environment Unit. (n.d.). Disaster Waste Management. UN Environment OCHA.
- Joint UNEP/OCHA Environment Unit. (2016). Flash Environmental Assessment Tool (FEAT) Pocket Guide. Geneva.
- UNESCO. (n.d.). *UNESCO*. Retrieved from World Water Assessment Programme: https://www.unesco.org/en/wwap
- UNESCO. (n.d.). *UNESCO*. Retrieved from Man and the Biosphere programme (MAB): https://www.unesco.org/en/man-and-biosphere
- Division of Resilience and Solutions (DRS). (2019). *GLOBAL STRATEGY FOR SUSTAINABLE ENERGY 2019-2025*. Geneva: United Nations High Commissioner for Refugees. Retrieved from https://www.unhcr.org/5db16a4a4
- UNHCR. (n.d.). *UNHCR*. Retrieved from Clean Energy Challenge: https://www.unhcr.org/clean-energy-challenge.html
- UNHCR. (n.d.). *UNHCR*. Retrieved from Sustainable Environmental Management: https://www.unhcr.org/sustainable-environmental-management.html

- UNHCR. (n.d.). *UNHCR*. Retrieved from Green Financing Facility: https://www.unhcr.org/green-financing-facility.html
- UN Human Rights; UNEP; UN WOMEN. (n.d.). HUMAN RIGHTS, THE ENVIRONMENT AND GENDER EQUALITY Key Messages.
- Global Toxics and. Human Rights project. (2021). The stages of the plastics cycle and their impacts on human rights Report of the Special Rapporteur on the implications for human rights of the environmentally sound management and disposal of hazardous substances and wastes, Marcos Orellana. OHCHR.
- UNHR; UNEP. (n.d.). *HUMAN RIGHTS AND HAZARDOUS SUBSTANCES Key Messages*. FAOSTAT. (n.d.). *Pesticides use, pesticides trade and pesticides indicators 1990-2019*. 2020: FAO.
- FAO. (n.d.). *Hand in Hand*. Retrieved from https://www.fao.org/hand-in-hand/en/
- FAO. (n.d.). Retrieved from Food and Agriculture Statistics: https://www.fao.org/food-agriculture-statistics/data-release/data-release-detail/en/c/1616127/
- FAO and UNEP. (2021). *GLOBAL ASSESSMENT OF SOIL POLLUTION Summary for policy makers*. Rome: the Food and Agriculture Organization of the United Nations and the United Nations Environment Programme.
- FAO and IWMI. (2018). *More people, more food, worse water? a global review of water pollution from agriculture*. Rome: the Food and Agriculture Organization of the United Nations and the International Water Management Institute on behalf of the Water Land and Ecosystems research program of the CGIAR.
- Montt, G. (2018). The gendered effects of air pollution on labour supply. ILO.
- ILO. (2020). *ILO INSTRUMENTS ON CHEMICAL SAFETY Analysis and synergies with other international frameworks on the sound management of chemicals* . Geneva: ILO.
- Saget, C., Vogt-Schilb, A., & Luu, T. (2020). *Jobs in a net-zero emissions future in Latin America and the Caribbean*. Geneva: IDB and ILO.
- FAO. (n.d.). Stop the Waste. Retrieved from https://www.wfp.org/foodwaste
- WFP. (n.d.). *How WFP is helping keep the air clean and the skies blue*. Retrieved from https://www.wfp.org/stories/how-wfp-helping-keep-air-clean-and-skies-blue
- ICAO. (n.d.). *Environment*. Retrieved from Sustainable aviation fuels: https://www.icao.int/environmental-protection/Pages/default.aspx
- ITU. (n.d.). *Climate Change*. Retrieved from ITUs work on Climate Change: https://www.itu.int/en/action/environment-and-climate-change/Pages/climate-change.aspx
- ITU. (n.d.). *E-waste*. Retrieved from ITUs work on E waste: https://www.itu.int/en/action/environment-and-climate-change/Pages/ewaste.aspx
- ITU. (n.d.). *Energy efficiency*. Retrieved from ITUs work on energy efficiency: https://www.itu.int/en/action/environment-and-climate-change/Pages/energy-efficiency.aspx
- ITU . (2020). ITU ENVIRONMENTAL SUSTAINABILITY STATEMENT. Geneva.
- UPU. (n.d.). *Sustainable development*. Retrieved from https://www.upu.int/en/Universal-Postal-Union/Activities/Sustainable-Development#environmental-sustainability
- WIPO. (n.d.). *WIPO GREEN* . Retrieved from The Marketplace for Sustainable Technology: https://www3.wipo.int/wipogreen/en/
- UN Habitat. (2016). Build Green: 100 ways to save money and the environment. Kenya: UN Habitat.
- UN Habitat and ICLEI. (2009). Sustainable Urban Energy Planning A handbook for cities and towns in developing countries. UN Habitat, ICLEI and UNEP.

- UNIDO. (n.d.). *Our Focus*. Retrieved from Safeguarding the environment: https://www.unido.org/our-focus/safeguarding-environment
- Ministerial Statement. (2021). TRADE AND ENVIRONMENTAL SUSTAINABILITY

 STRUCTURED DISCUSSIONS (TESSD) MINISTERIAL STATEMENT ON TRADE AND

 ENVIRONMENTAL SUSTAINABILITY. WTO.
- WTO. (n.d.). *Trade and environmental sustainability*. Retrieved from https://www.wto.org/english/tratop_e/tessd_e/tessd_e.htm
- WTO. (2018). Mainstreaming trade to attain the Sustainable Development Goals. Genveva: WTO.
- UN. (2016). UNCTAD XIV OUTCOME Nairobi Maafikiano and Nairobi Azimio. New York and Geneva.
- ITC. (n.d.). *Green competitiveness*. Retrieved from https://intracen.org/our-work/topics/sustainability/green-competitiveness
- ITC. (n.d.). *Sustainable Trade and Investments*. Retrieved from https://intracen.org/our-work/topics/sustainability/sustainable-trade-and-investment
- UNICEF. (n.d.). A Liveable Planet for Every Child UNICEF's Strategy-at-a-Glance for Climate, Environment, Energy and Disaster Risk Reduction CEED (2022-2030). UNICEF.
- UNITAR. (n.d.). *Planet portfolio*. Retrieved from https://unitar.org/sustainable-development-goals/planet/our-portfolio
- IAEA. (n.d.). *Polltion*. Retrieved from https://www.iaea.org/topics/pollution
- IAEA. (2022). Assessment of Radioactive Contamination and Effectiveness of Remedial Measures in Urban Environments. Vienna: IAEA.
- IAEA. (2022). Management of Naturally Occurring Radioactive Material (NORM) in Industry. Vienna.
- IAEA. (2022). Remediation Strategy and Process for Areas Affected by Past Activities or Events. Vienna.
- WMO. (n.d.). *Environment*. Retrieved from https://public.wmo.int/en/our-mandate/focus-areas/environment
- WMO. (n.d.). *Dashboard on Hydrological observations*. Retrieved from https://app.powerbi.com/view?r=eyJrIjoiMGJmMzI2MmQtZTQ2OC00NDFlLWJlNDUt Zjc5NmY5OGYwNjI5IiwidCI6ImVhYTZiZTU0LTQ2ODctNDBjNC05ODI3LWMwN DRiZDhlOGQzYyIsImMiOjl9
- UNOSPA. (n.d.). *Space for Water*. Retrieved from https://www.unoosa.org/oosa/en/ourwork/topics/space-for-water.html
- UN Office for Outer Space Affairs. (2022). ANNUAL REPORT 2021. Vienna.
- Bergant, K., Mano, R. C., & Shibata, I. (2022). From Polluting to Green Jobs: A Seamless Transition in the U.S.? . IMF.
- JPOSC. (n.d.). *About the JPOSC*. Retrieved from https://www.undp.org/jposc/unfpa?utm_source=EN&utm_medium=GSR&utm_content= US_UNDP_PaidSearch_Brand_English&utm_campaign=CENTRAL&c_src=CENTRAL&c_src2=GSR&gclid=Cj0KCQiA7bucBhCeARIsAIOwr-9HUHasdStFPSFhI_bscBji0J8xtfEFuTus5KSWY0k5eE7GqcSAyIgaAr69EALw_wcB
- UNEP. (2017). *Towards a Pollution-Free Planet. Background report.* Nairobi: United Nations Environment Programme.
- United Nations Environment Programme. (2017). *Towards a Pollution-Free Planet. Background report*. Nairobi: United Nations Environment Programme.
- Department for Economic and Social Information and Analysis. (n.d.). 1997: United Nations.

- Strategic Approach to International Chemicals Management. (2022). Addressing Industry Involvement in the Funding of Sound Management of Chemicals and Waste. Bucharets: SAICM.
- UNEP. (2022). Greening the Blue Report 2022 2021 Data Highlights: Overview Greenhouse Gas Emissions Environmental Governance The 2022 edition of the Greening the Blue Report provides United Nations (UN) system-wide 2021 data on the environmental impact areas and manage. UNEP.
- UNEP. (n.d.). *How addressing pollution will help reach the SDGs*. Retrieved from https://wesr.unep.org/relatedsdgs
- Cambridge University. (n.d.). STERN REVIEW: The Economics of Climate Change. Edinburgh.
- United Nations Development Programme. (2022). *Transitioning to a Circular Economy Through Chemical and Waste Management*. NEW YORK: UNDP.
- Sustainable Manufacturing and Environmental Pollution Programme. (2019). Sustainable Manufacturing and Environmental Pollution Programme. SMEP.
- Ocean's Forum. (2022). 4th Oceans Forum on trade-related aspects of Sustainable Development Goal 14. Retrieved from UNCTAD: https://unctad.org/meeting/4th-oceans-forum-trade-related-aspects-sustainable-development-goal-14
- SMEP. (2020). *Manufactiring Pollution in Sub-Saharan Africa and South Asia*. New York: UNCTAD.
- UNCTAD. (2021). The role of exports in manufacturing pollution in Sub Saharan Africa and South Asia.
- UNCTAD. (2021). Substitutes for single-use plastics in sub-Saharan Africa and south Asia. UNCTAD.
- UNCTAD. (2022). Workshop on sustainable and effective substitutes and alternatives for plastics. Geneva.
- World Health Organization. (n.d.). *Children's Environmental Health*. Retrieved from WHO: Children's environmental health
- World Health Organization and the United Nation Children's Fund. (2021). *Progress on household drinking water, sanitation and hygiene 2000–2020: Five years into the SDGs.* Geneva: WHO/UNICEF Joint Monitoring Programme for Water Supply, Sanitation and Hygiene (JMP).
- Agudo, P. A. (2022). Human rights to safe drinking water and sanitation of indigenous peoples: state of affairs and lessons from ancestral cultures Report of the Special Rapporteur on the human rights to safe drinking water and sanitation,. United Nations General Assembly.
- UNDRR. (n.d.). *Hazard definition and classification review*. Retrieved from Sendai Framework: https://www.preventionweb.net/hazard-information-profiles#:~:text=The% 20Hazard% 20definition% 20and% 20classification% 20review% 20provides% 20a,revolution% 2C% 20rigorous% 20accountability% 20mechanisms% 20and% 20renewed% 20global% 20partnerships% E2% 80% 9D.
- UNWTO. (n.d.). *Global Tourism Plasticas Iniciative*. Retrieved from https://www.unwto.org/sustainable-development/global-tourism-plastics-initiative
- UNU. (n.d.). *Sustainable Development Explorer UNU*. Retrieved from https://unu.edu/explore/sustainable-development-goal-7
- UNWTO. (n.d.). *The Hotel Energy Solution*. Retrieved from https://www.unwto.org/hotelenergy-solution
- UNECE. (n.d.). *Environment for Europe*. Retrieved from UNECE Environment Policy: https://unece.org/environment-policy/environment-europe

- UNECE. (n.d.). *UNECE and the SDGs*. Retrieved from Regional Forum on Sustainable Development: https://unece.org/unece-and-sdgs/regional-forum-sustainable-development
- UNECE. (n.d.). *Regional Forum on Sustainable Development*. Retrieved from UNECE and the SDGs: https://unece.org/environment-policy/air
- UNECE. (n.d.). *Environmental assessment*. Retrieved from UNECE Environmental Policy: https://unece.org/environment-policy/environmental-assessment
- UNECE. (n.d.). *The Water Convention and the Protocol on Water and Health* . Retrieved from UNECE Environment Policy: https://unece.org/environment-policy/water
- UNECE. (n.d.). *Public participation*. Retrieved from Environment Policy: https://unece.org/environment-policy/public-participation
- UNECE. (n.d.). *Education for Sustainable Development*. Retrieved from Environment Policy: https://unece.org/environment-policy/education-sustainable-development
- UNECE. (n.d.). About the PEP. Retrieved from The PEP: https://thepep.unece.org/
- UNECE. (n.d.). Retrieved from Feed UP UN: https://feedup.unece.org/
- IFAD. (2021, October). *The Biodiversity Advantage: Thriving with nature biodiversity for sustainable livelihoods and food systems*. Retrieved from IFAD investing in rural people: https://www.ifad.org/en/web/knowledge/-/biodiversity-advantage-report
- IFAD. (2022, September). *Hungry caterpillars threaten Kenya's crops. Can plants provide a natural pest control solution?* Retrieved from IFAD investing in rural people: https://www.ifad.org/en/web/latest/-/hungry-caterpillars-threaten-kenya-crops-can-plants-provide-natural-pest-control?p_l_back_url=%2Fen%2Fweb%2Flatest%2Fblogs%3Fstent%3D5%26delta%3D 9%26start%3D3
- IFAD. (2018, March). *The Water Advantage: Seeking sustainable solutions for water stress*. Retrieved from IFAD Knowledge Library: https://www.ifad.org/en/web/knowledge/publication/the-water-advantage-seeking-sustainable-solutions-for-water-stress
- IFAD. (2019, December). *IFAD, together with ASEAN invests in reducing transboundary haze pollution in Southeast Asia*. Retrieved from IFAD News: https://www.ifad.org/en/web/latest/-/news/ifad-together-with-asean-invests-in-reducing-transboundary-haze-pollution-in-southeast-asia
- IFAD. (2020). *Could avocados save Nairobi's water?* Retrieved from IFAD investing in rural peple: https://www.ifad.org/zh-TW/web/latest/-/story/could-avocados-save-nairobi-swater-